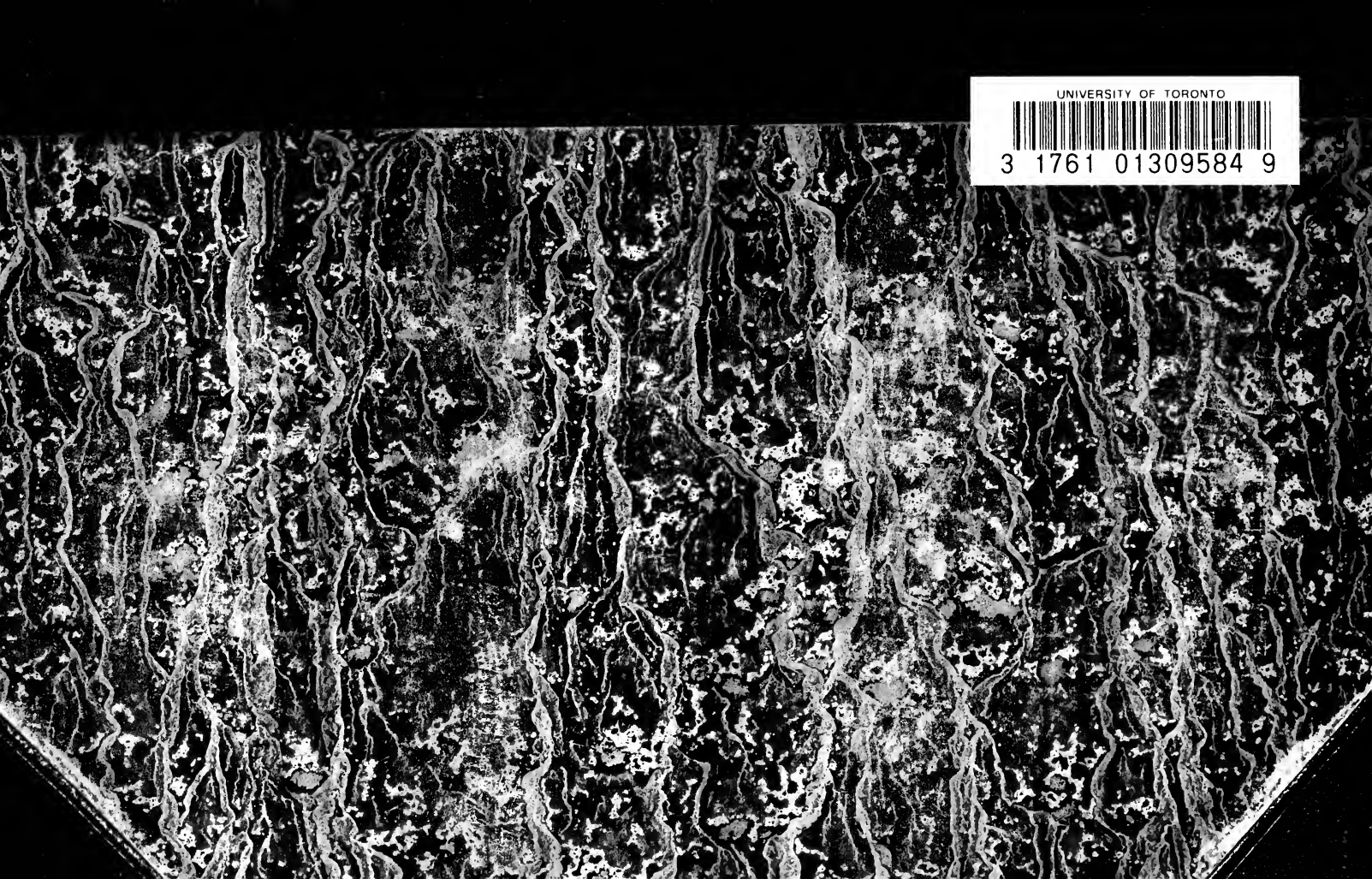

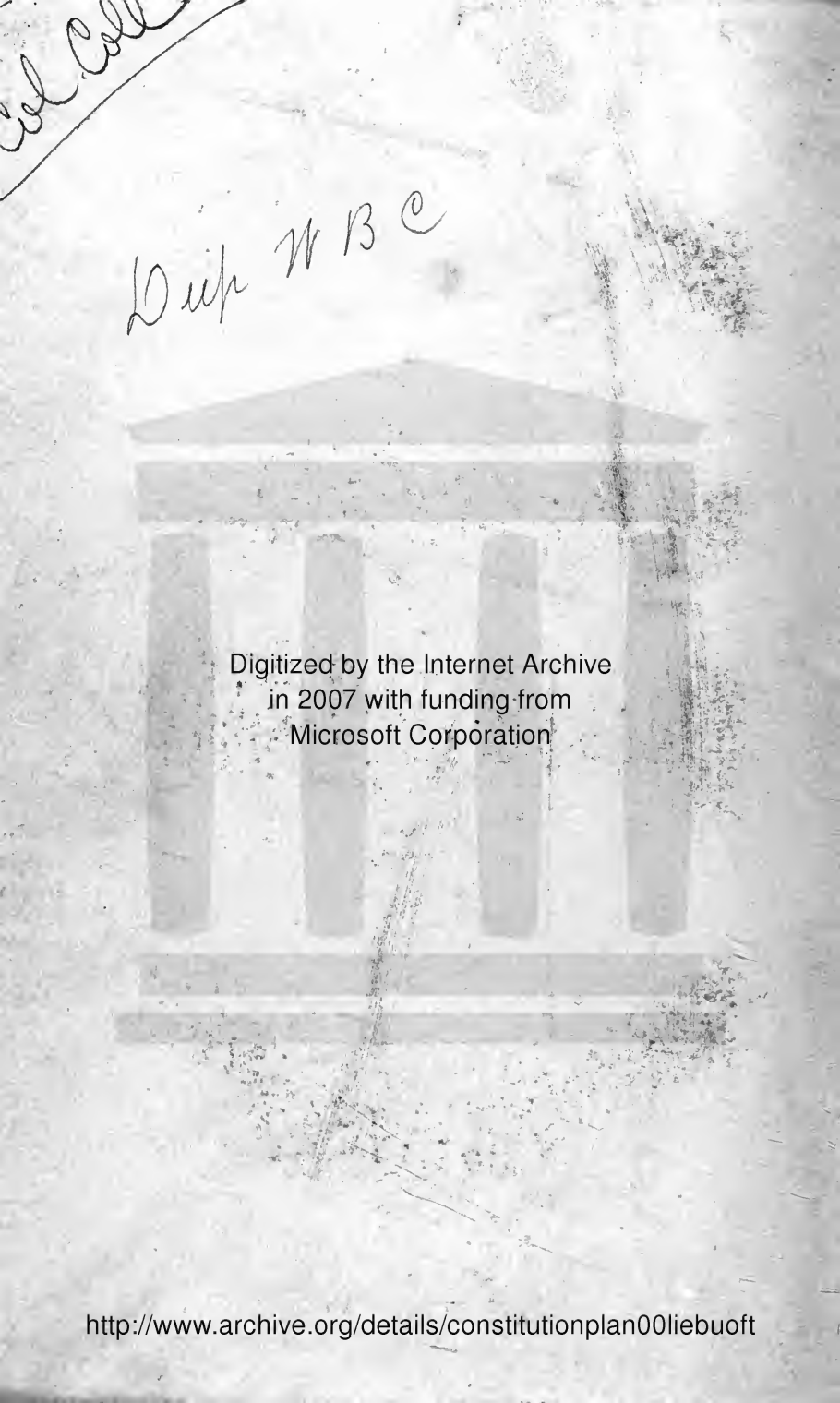

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A

# CONSTITUTION

AND

# PLAN OF EDUCATION

FOR

## Girard College for Orphans,

WITH AN

## INTRODUCTORY REPORT,

LAID

BEFORE THE BOARD OF TRUSTEES.

BY

FRANCIS LIEBER.

AND STILL IT MOVES.—GALILEO.

PRINTED BY ORDER OF THE BOARD.



PHILADELPHIA:
CAREY, LEA AND BLANCHARD.

1834.

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# CONTENTS.

# PART I.

## CLAUSES XX, XXI, AND PART OF XXIV,

OF THE

## WILL OF THE LATE STEPHEN GIRARD, Esq.

CONTAINING HIS

*Directions and Provisions respecting the Foundation of a College for Orphans.*

[They have been extracted from the "Statement of Devises, Bequests and Grants, to the Corporation of the City of Philadelphia, in Trust. Published by order of Councils, June 1832. Philadelphia, 1832." All quotations, extracts, &c. of Mr. Girard's Will, in the Constitution and Introductory Report in the following pages have been made from this edition of the Will.]

XX. And whereas, I have been for a long [*page* 12] time impressed with the importance of educating the poor, and of placing them by the early cultivation of their minds and the development of their moral principles above the many temptations, to which, through poverty and ignorance they are exposed; and I am particularly desirous to provide for such a number of poor male white orphan children, as can be trained in one institution, a better education, as well as a more comfortable maintenance than they usually receive from the application of the public funds: And whereas, together with the object just adverted to, I have sincerely at heart the welfare of the City of

Philadelphia, and, as a part of it, am desirous to improve the neighbourhood of the river Delaware, so that the health of the citizens may be promoted and preserved, and that the eastern part of the city may be made to correspond better with the interior:

[13] Now, I do give, devise and bequeath *all the residue and remainder of my Real and Personal Estate* of every sort and kind whersoever situate, (the real estate in Pennsylvania charged as aforesaid) unto "the Mayor, Aldermen and Citizens of Philadelphia," their successors and assigns, in trust, to and for the several uses, intents, and purposes hereinafter mentioned and declared of and concerning the same, that is to say: So far as regards my real estate in Pennsylvania, in trust, that no part thereof shall ever be sold or alienated by the said the Mayor, Aldermen and Citizens of Philadelphia, or their successors, but the same shall for ever thereafter be let from time to time, to good tenants, at yearly, or other rents, and upon leases in possession not exceeding five years from the commencement thereof, and that the rents, issues, and profits arising therefrom shall be applied towards keeping that part of the said real estate situate in the city and liberties of Philadelphia constantly in good repair, (parts elsewhere situate to be kept in repair by the tenants thereof respectively) and towards improving the same, whenever necessary, by erecting new buildings, and that the nett residue (after paying the several annuities herein before provided for) be applied to the same uses and purposes as are herein declared of and concerning the residue of my personal estate:

And so far as regards my real estate in Kentucky, now under the care of Messrs. Triplett and Burmley, in trust, to sell and dispose of the same, whenever it may be expedient to do so, and to apply the proceeds of such sale to the same uses and purposes as are herein declared of and concerning the residue of my personal estate.

XXI. And so far as regards the residue of my personal estate, in trust, as to *Two Millions of Dollars*, part thereof to apply and expend so much of that sum as may be necessary—in erecting, as [14] soon as practicably may be, in the centre of my square of ground between High and Chesnut Streets, and Eleventh and Twelfth Streets, in the City of Philadelphia, (which square of ground I hereby devote for the purposes hereinafter stated, and for no other, for ever,) a permanent college, with suitable out-buildings, sufficiently spacious for the residence and accommodation of at least three hundred scholars, and the requisite teachers and other persons necessary in such an institution as I direct to be established: and in supplying the said college and out-buildings with decent and suitable furniture, as well as books and all things needful to carry into effect my general design.

The said college shall be constructed with the most durable materials, and in the most permanent manner, avoiding needless ornament, and attending chiefly to the strength, convenience, and neatness of the whole: It shall be at least one hundred and ten feet east and west, and one hundred and sixty feet north and south, and shall be built on lines parallel with High and

Chesnut Streets and Eleventh and Twelfth Streets, provided those lines shall constitute at their junction right angles: It shall be three stories in height, each story at least fifteen feet high in the clear from the floor to the cornice: It shall be fire-proof inside and outside. The floors and the roof to be formed of solid materials, on arches turned on proper centres, so that no wood may be used, except for doors, windows and shutters: Cellars shall be made under the whole building, solely for the purposes of the institution; the doors to them from the outside shall be on the east and west of the building, and access to them from the inside shall be had by steps, descending to the cellar floor from each of the entries or halls hereinafter mentioned, and the inside cellar doors to open under
[15] the stairs on the north-east and north-west corners of the northern entry, and under the stairs on the south-east and south-west corners of the southern entry; there should be a cellar window under and in a line with each window in the first story—they should be built one half below, the other half above the surface of the ground, and the ground outside each window should be supported by stout walls; the sashes should open inside, on hinges, like doors, and there should be strong iron bars outside each window; the windows inside and outside should not be less than four feet wide in the clear: There shall be in each story four rooms, each room not less than fifty feet square in the clear; the four rooms on each floor to occupy the whole space east and west on such floor or story, and the middle of the building north and south; so that in the north

of the building, and in the south thereof, there may remain a space of equal dimensions, for an entry or hall in each, for stairs and landings: In the north-east and in the north-west corners of the northern entry or hall on the first floor, stairs shall be made so as to form a double stair-case, which shall be carried up through the several stories; and, in like manner, in the south-east and south-west corners of the southern entry or hall, stairs shall be made, on the first floor, so as to form a double stair-case, to be carried up through the several stories; the steps of the stairs to be made of smooth white marble, with plain square edges, each step not to exceed nine inches in the rise, nor to be less than ten inches in the tread; the outside and inside foundation walls shall be at least ten feet high in the clear from the ground to the ceiling; the first floor shall be at least three feet above the level of the ground around the building, after that ground shall have been so regulated as that there shall be a gradual descent [16] from the centre to the sides of the square formed by High and Chesnut and Eleventh and Twelfth Streets; all the outside foundation walls, forming the cellars, shall be three feet six inches thick up to the first floor, or as high as may be necessary to fix the centres for the first floor; and the inside foundation wall, running north and south, and the three inside foundation walls running east and west (intended to receive the interior walls for the four rooms, each not less than fifty feet square in the clear, above mentioned), shall be three feet thick up

to the first floor, or as high as may be necessary to fix the centres for the first floor when carried so far up, the outside walls shall be reduced to two feet in thickness, leaving a recess outside of one foot, and inside, of six inches—and when carried so far up, the inside foundation walls shall also be reduced, six inches on each side, to the thickness of two feet; centres shall then be fixed on the various recesses of six inches throughout, left for the purpose, the proper arches shall be turned, and the first floor laid; the outside and the inside walls shall then be carried up of the thickness of two feet throughout, as high as may be necessary to begin the recess intended to fix the centres for the second floor, that is, the floor for the four rooms, each not less than fifty feet square in the clear, and for the landing in the north, and the landing in the south of the building, where the stairs are to go up—at this stage of the work, a chain, composed of bars of inch square iron, each bar about ten feet long, and linked together by hooks formed of the ends of the bars, shall be laid straightly and horizontally along the several walls, and shall be as tightly as possible worked into the centre of them throughout, and shall be secured wherever ne-
[17] cessary, especially at all the angels, by iron clamps solidly fastened, so as to prevent cracking or swerving in any part; centres shall then be laid, the proper arches turned for the second floor and landings, and the second floor and landings, shall be laid; the outside and the inside walls shall then be carried up of the same thickness of two feet through-

out as high as may be necessary to begin in the recess intended to fix the centres for the third floor and landings, and, when so far carried up, another chain similar in all respects to that used at the second story, shall be in like manner worked into the walls throughout as tightly as possible, and clamped in the same way with equal care; centres shall be formed, the proper arches turned, and the third floor and landings shall be laid: the outside and the inside walls shall then be carried up, of the same thickness of two feet throughout, as high as may be necessary to begin the recess intended to fix the centres for the roof; and, when so carried up, a third chain, in all respects like those used at the second and third stories, shall in the manner before described, be worked as tightly as possible into the walls throughout, and shall be clamped with equal care; centres shall now be fixed in the manner best adapted for the roof, which is to form the ceiling for the third story, the proper arches shall be turned, and the roof shall be laid as nearly horizontally as may be, consistently with the easy passage of water to the eaves: the outside walls still of the thickness of two feet throughout, shall then be carried up about two feet above the level of the platform, and shall have marble capping, with a strong and neat iron railing thereon: The outside walls shall be faced with slabs or blocks of marble or granite, not less than two feet thick, and fastened together with clamps securely sunk therein,—
they shall be carried up flush from the recess [18]
of one foot formed at the first floor where the

foundation outside wall is reduced to two feet: The floors and landings as well as the roof shall be covered with marble slabs, securely laid in mortar; the slabs an the roof to be twice as thick as those on the floors. In constructing the walls, as well as in turning the arches, and laying the floors, landings, and roof, good and strong mortar and grout, shall be used, so that no cavity whatever may any where remain. A furnace or furnaces for the generation of heated air shall be placed in the cellar, and the heated air shall be introduced in adequate quantity wherever wanted by means of pipes and flues inserted and made for the purpose in the walls, and as those walls shall be constructed. In case it shall be found expedient for the purposes of a library, or otherwise, to increase the number of rooms, by dividing any of these directed to be not less than fifty feet square in the clear, into parts, the partition walls to be of solid materials. A room most suitable for the purpose, shall be set apart for the reception, and preservation of my books and papers, and I direct that they shall be placed there by my executors, and carefully preserved therein. There shall be two principal doors of entrance into the college, one into the entry or hall on the first floor, in the north of the building, and in the centre between the east and west walls, the other into the entry or hall in the south of the building, and in the centre between the east and west walls; the dimensions to be determined by a due regard to the size of the entire building, to that of the entry, and to the purposes of the doors. The necessity for, as well as

the position and size of, other doors, internal or external, and also the position and size of the windows, to be, in like manner, decided on by a consideration of the uses to which the building is to be applied,
the size of the building itself, and of the several [19]
rooms, and of the advantages of light and air:
there should in each instance be double doors, those opening into the rooms to be what are termed glass doors, so as to increase the quantity of light for each room, and those opening outward to be of substantial wood work well lined and secured; the windows of the second and third stories I recommend to be made in the style of those in the first and second stories of my present dwelling house, North Water Street, on the eastern front thereof; and outside each window I recommend that a substantial and neat iron balcony be placed, sufficiently wide to admit the opening of the shutters against the walls; the windows of the lower story to be in the same style except that they are not to descend to the floor, but so far as the surbase, up to which the wall is to be carried, as is the case in the lower story of my house at my place in Passyunk Township. In minute particulars, not here noticed, utility and good taste should determine. There should be at least four out-buildings, detached from the main edifice and from each other, and in such positions as shall at once answer the purposes of the institution, and be consistent with the symmetry of the whole establishment: each building should be, as far as practicable, devoted to a distinct purpose; in that one or more of those buildings, in which they may be most

useful, I direct my excutors to place my plate and furniture of every sort.

The entire square, formed by High and Chesnut Streets, and Eleventh and Twelfth Streets, shall be enclosed with a solid wall, at least fourteen inches thick, and ten feet high, capped with marble and guarded with irons on the top, so as to prevent persons from getting over; there shall be two places of
[20] entrance into the square, one in the centre of the wall facing High Street, and the other in the centre of the wall facing Chesnut Street; at each place of entrance there shall be two gates, one opening inward, and the other outward; those opening inward to be of iron, and in the style of the gates north and south of my Banking house; and those opening outward to be of substantial wood work well lined and secured on the faces thereof with sheet iron. The messuages now erected on the south-east corner of High and Twelfth Streets, and on Twelfth Street, to be taken down and removed as soon as the college and out-buildings shall have been erected, so that the establishment may be rendered secure and private.

When the college and appurtenances shall have been constructed, and supplied with plain and suitable furniture and books, philosophical and experimental instruments and apparatus, and all other matters needful to carry my general design into execution; the income, issues and profits of so much of the said sum of two millions of dollars as shall remain unexpended, shall be applied to maintain the said college according to my directions.

1. The institution shall be organized as soon as practicable, and to accomplish that purpose more effectually, due public notice of the intended opening of the college shall be given—so that there may be an opportunity to make selections of competent instructors, and other agents, and those who may have the charge of orphans, may be aware of the provisions intended for them.

2. A competent number of instructors, teachers, assistants, and other necessary agents, shall be selected, and when needful, their places from time to time supplied: they shall receive adequate compensation for their services: but no person shall be employed, who shall not be of tried skill in his or her proper department, of established moral cha- [21] racter, and in all cases persons shall be chosen on account of their merit, and not through favor or intrigue.

3. As many poor white male orphans, between the ages of six and ten years, as the said income shall be adequate to maintain, shall be introduced into the college as soon as possible; and from time to time as there may be vacancies, or as increased ability from income may warrant, others shall be introduced.

4. On the application for admission, an accurate statement should be taken in a book prepared for the purpose, of the name, birthplace, age, health, condition as to relatives, and other particulars useful to be known of each orphan.

5. No orphan should be admitted until the guardians or directors of the poor, or a proper guardian or

other competent authority, shall have given, by indenture, relinquishment, or otherwise, adequate power to the Mayor, Aldermen, and Citizens of Philadelphia, or to directors, or others by them appointed, to enforce, in relation to each orphan, every proper restraint, and to prevent relatives or others from interfering with, or withdrawing such orphan from the institution.

6. Those orphans, for whose admission application shall first be made, shall be first introduced, all other things concurring—and at all future times, priority of application shall entitle the applicant to preference in admission, all other things concurring; but if there shall be at any time, more applicants than vacancies, and the applying orphans shall have been born in different places, a preference shall be given—*first*, to orphans born in the city of Philadelphia; *secondly*, to those born in any other part of Pennsylvania; *thirdly*, to those born in the city of New York (that
[22] being the first port on the continent of North America at which I arrived); and *lastly*, to those born in the city of New Orleans, being the first port on the said continent at which I first traded, in the first instance as first officer, and subsequently as master and part owner of a vessel and cargo.

7. The orphans admitted into the college, shall be there fed with plain but wholesome food, clothed with plain but decent apparel, (no distinctive dress ever to be worn) and lodged in a plain but safe manner: Due regard shall be paid to their health, and to this end their persons and clothes shall be kept clean, and they

shall have suitable and rational exercise and recreation: They shall be instructed in the various branches of a sound education, comprehending reading, writing, grammar, arithmetic, geography, navigation, surveying, practical mathematics, astronomy, natural, chemical, and experimental philosophy, the French and Spanish languages, (I do not forbid, but I do not recommend the Greek and Latin languages)—and such other learning and science as the capacities of the several scholars may merit or warrant: I would have them taught facts and things, rather than words or signs: And, especially, I desire, that by every proper means a pure attachment to our republican institutions, and to the sacred rights of conscience, as guaranteed by our happy constitutions, shall be formed and fostered in the minds of the scholars.

8. Should it unfortunately happen, that any of the orphans, admitted into the college, shall, from misconduct, have become unfit companions for the rest, and mild means of reformation prove abortive, they should no longer remain therein.

9. Those scholars, who shall merit it, shall [23] remain in the college until they shall respectively arrive at between fourteen and eighteen years of age; they shall then be bound out by the Mayor, Aldermen and Citizens of Philadelphia, or under their direction, to suitable occupations, as those of agriculture, navigation, arts, mechanical trades, and manufactures, according to the capacities and acquirements of the scholars respectively, consulting, as far as prudence shall justify it, the inclinations of the

several scholars, as to the occupation, art, or trade, to be learned.

In relation to the organization of the college and its appendages, I leave, necessarily, many details to the Mayor, Aldermen and Citizens of Philadelphia, and their successors; and I do so, with the more confidence, as, from the nature of my bequests and the benefit to result from them, I trust that my fellow citizens of Philadelphia, will observe and evince especial care and anxiety in selecting members for their city councils, and other agents.

There are, however, some restrictions, which I consider it my duty to prescribe, and to be, amongst others, conditions on which my bequest for said college is made and to be enjoyed, namely: *first*, I enjoin and require, that, if, at the close of any year, the income of the fund devoted to the purposes of the said college shall be more than sufficient for the maintenance of the institution during that year, then the balance of the said income, after defraying such maintenance, shall be forthwith invested in good securities, thereafter to be and remain a part of the capital; but, in no event, shall any part of the said capital be sold, disposed of, or pledged, to meet the current expenses of the said institution, to which
[24] I devote the interest, income, and dividends thereof, exclusively: *Secondly*, I enjoin and require that *no ecclesiastic, missionary, or minister of any sect whatsoever, shall ever hold or exercise any station or duty whatever in the said college; nor shall any such person ever be admitted for any purpose, or as a visiter,*

*within the premises appropriated to the purposes of the said college*:—In making this restriction, I do not mean to cast any reflection upon any sect or person whatsoever; but, as there is such a multitude of sects, and such a diversity of opinion amongst them, I desire to keep the tender minds of the orphans, who are to derive advantage from this bequest, free from the excitement, which clashing doctrines and sectarian controversy are so apt to produce; my desire is, that all the instructors and teachers in the college shall take pains to instil into the minds of the scholars, *the purest principles of morality*, so that, on their entrance into active life, they may *from inclination and habit*, evince *benevolence towards their fellow creatures*, and *a love of truth, sobriety and industry*, adopting at the same time such religious tenets as their *matured reason* may enable them to prefer.—If the income, arising from that part of the said sum of two millions of dollars, remaining after the construction and furnishing of the college and out-buildings, shall, owing to the increase of the number of orphans applying for admission, or other cause, be inadequate to the construction of new buildings or the maintenance and education of as many orphans as may apply for admission, then such further sum as may be necessary for the construction of new buildings and the maintenance and education of such further number of orphans, as can be maintained and instructed within such buildings as the said square of ground shall be adequate to, shall be taken from the final residuary fund hereinafter expressly referred to for

[25] the purpose, comprehending the income of my real estate in the city and county of Philadelphia, and the dividends of my stock in the Schuylkill Navigation Company—my design and desire being, that the benefits of said institution shall be extended to as great a number of orphans as the limits of the said square and buildings therein can accommodate.

[30] XXIV. And as it regards *the remainder of said residue* of my personal estate, in trust, to invest the same in good securities, and in like manner to invest the interest and income thereof from time to time, so that the whole shall form a permanent fund; and to apply the income of the said fund,

1st. To the further improvement and maintenance of the aforesaid College, as directed in the last paragraph of the XXIst clause of this Will.

# PART II.

CONSTITUTIONS, REPORTS, HISTORIES, &c. OF CHARITABLE INSTITUTIONS FOR EDUCATION; PUBLIC, POLYTECHNIC AND MANUAL SCHOOLS; PLANS AND PROPOSALS RESPECTING THEM, &c. &c. CHIEFLY IN FRANCE AND GERMANY, RECEIVED BY THE AUTHOR.

1. *Histoire de L' Ecole Polytechnique par A. Fourcy, Paris,* 1828.
2. *Programmes de L'Enseignement de L'Ecole Impériale Polytechnique, de* 1809–1810.
3. *Programmes de L'Enseignement de L'Ecole Polytechnique pour* 1817–1818.
4. *Programmes de L'Enseignement de L'Ecole, Polytechnique pour* 1824–1825.
5. *Programmes de L'Enseignement de L'Ecole Polytechnique pour* 1825–1826.
6. *Programmes de L'Enseignement de L'Ecole Polytechnique pour* 1826–1827.
7. *Programmes de L'Enseignement de L'Ecole Polytechnique pour* 1828–1829.
8. *Programmes de L'Enseignemeut de L'Ecole Polytechnique pour* 1829–1830.
9. *Programmes de L'Enseignement de L'Ecole Polytechnique pour* 1831–1832.
10. *Programmes de L'Enseignement de L'Ecole Polytechnique pour* 1832–1833.
11. *Annuaire de L'Ecole Polytechnique, pour* 1833. *Paris,* 1832.
12. *Rapport sur L'Etat de L'Instruction Publique dans quelques Pays de L'Allemagne et particulariérment en Prusse par M. V. Cousin, nouvelle edition. Paris,* 1833.

13. The same, translated into German, with Notes by T. C. Kröger, Altona, 1832.
14. Program of the Grand-ducal Polytechnic School of Baden, at Carlesruhe, for the year 1832 to 1833.
15. Manuscript on Polytechnic Schools in general, by Mr. Muncke, Professor of Physics and Mathematics in the University of Heidelberg. (in German.)
16. Asylum for Orphans, Children of Persons in Civil Life, at Potsdam, 2d ed. Potsdam, 1832. (in German.)
17. On the Necessity, Object and Subjects of Instruction of the Polytechnic School in Berlin. A Program for 1825, by K. F. Klöden, its Director. Berlin. (in German.)
18. Information on the Object and Organisation of the Polytechnic School of the City of Berlin. Berlin, 1830. (in German.)
19. To the Parents of the Pupils of the Polytechnic School of the City of Berlin. Berlin, 1830. (in German.)
20. On the farther improvement of Artisans out of School. A Program for the Berlin Polytechnic School for 1827, by K. F. Klöden, its Director. (in German.)
21. Program for the Examination of the Pupils of the Berlin Polytechnic School for 1829, by K. F. Klöden, its Director. (in German.)
22. Program for the Examination of the Pupils of the Berlin Polytechnic School in 1830, by K. F. Klöden. (in German.)
23. Program for the Examination of the Pupils of the Berlin Polytechnic School in 1831, by K. F. Klöden. (in German.)
24. Program for the Examination of the Pupils of the Berlin Polytechnic School for 1832, by K. F. Klöden. (in German.)
25. The Wadzeck-Institution in Berlin. (in German.)

26. Report on the Institution for Education of Mr. Cauer, in Charlottenburg, by Louis Cauer. Berlin, 1828. (in German.)
27. History of the Louisa-Institute, down to the Conclusion of 1808, by Theodore Heinsius. Berlin, 1809. (in German.)
28. On the Institutions for Twenty-five minor Orphans without either Parent, for Fifty male and Twenty-five female Vagrant Children, in Berlin. Berlin, 1820. (in German.)
29. Regulations for the Manual Labor Institute of the City of Berlin. Berlin, 1807. (in German.)
30. *Détails de l'Administration de l'Ecole de Charité à Berlin*, (for poor children of the French Colony, so called.) (in Manuscript.)
31. Plan and Constitution of the Great Frederic Orphan Asylum, in Berlin. (in Manuscript, in German.)
32. Information on the Course of Instruction of the Polytechnic Institute in Dresden, for 1833. (in German.)
33. Brief Information concerning the Constitution, Instruction and Expenses in the Royal *Paedagogium* at Halle, by H. A. Niemeyer, Halle, 1831. (in German.)
34. Brief Information concerning the Organisation, Instruction and Expenses of the Institution of Education, connected with the Latin and Common Schools in the Orphan Asylum at Halle, by H. A. Niemayer. Halle, 1833. (in German.)
35. Orphan Asylums, judiciously organized, may become the most perfect and most useful Educational Institutions of a Country, by A. Zarnack. Berlin, 1819. (in German.)
36. Information respecting the present State of Education in the Great Royal Military Orphan Asylum at Potsdam, by A. Zarnack, its Director. Berlin, 1817. (in German.)

37. Ideas concerning the Foundation of an Educational Institution for male Orphans of Artisans, Teachers of Elementary Schools, and Inferior Officers, by von Türk, Royal Prussian School-Councellor. Berlin, 1829. (in German.
38. *Rélation de la Maison des Orphelins Publiée à l'Occasion de son Jubilé Centenaire, célébré le* 31 *May*, 1825. *Berlin.*
39. Centennial Celebration of the Schindler-Orphan-Asylum in Berlin, 1830. (in German.)
40. Foundation of the Schindler-Orphan-Asylum in 1741. (Manuscript in German.)
41. Instruction of the Teachers of the Schindler-Orphan-Asylum in Berlin, 1827. (Manuscript in German.)
42. Scheme of Studies, Economical Directions, Teachers, &c. for and of the Schindler-Orphan Asylum in Berlin. (Manuscript in German.)
43. Practical Remarks on the Education of the Operative Classes, by H. Brougham. Translated into German from the 20th edition, with a preface and notes by K. F. Klöden. Berlin, 1827.
44. On the Spirit in the University of Tubingen at the time of the Thirty Years War, by G. H. F. von Autenrenrith. Tübingen, 1832.
45. Principles on which the Manual Labor Schools of the City of Berlin are established. (in German.)
46. The same, enlarged. Berlin, 1830. (in German.)
47. Thirtieth Information of the State of Manual Labor Schools, established in 1793 in Berlin. (in German.)
48. Thirty First Information " " "
49. Thirty Fourth Information " " "
50. Extract of the Statutes of the Society for the Education of Children Morally Neglected and Abandoned. (in German.)
51. First Annual Report of the same Society.

52. Fifth Annual Report of the same Society.
53. Sixth " " " "
54. Seventh " " " "
55. Progressive Scale of Gymnastic Exercises, by E. Eiselen, Professor of Gymnastics in Berlin. (in Manuscript.)
56. Scheme of Studies for the Winter and Summer Terms in the Seminary for the Education of Teachers in New-Zelle, in Prussia. (in Manuscript.)
57. Description of the best Vaulting Horses. (in Manuscript.)
58. On Swimming. By General Pfuel. (in German.)
59. Magic Circle (for Gymnastic Exercises) Described, by E. W. B. Eiselen. Berlin, 1829.
60. German Gymnastics, by Drs. Jahn and Eiselen. Berlin, 1826. (in German.)
61. Treatise on Gymnastics, taken chiefly from the German of F. L. Jahn. Northampton, Mass. 1828.
62. Outlines of Gymnastics, by C. A. Zeller. Königsberg, 1817. (in German.)
63. German Broad Sword Fencing, by E. W. B. Eiselen. Berlin, 1818. (in German.)

# PART III.

## INTRODUCTORY REPORT.

MR. PRESIDENT,

AND GENTLEMEN OF THE BOARD OF TRUSTEES,

Your predecessors had kindly invited, and you have charged me to draw up a plan for Girard College; I herewith lay before you the result of my labors. The confidence, of which you have been pleased to give me so signal a proof by this appointment, and the magnitude of the subject, have encouraged and animated me throughout my studies for this honorable task, and if the contents of the following pages fall far short of your expectation, I beg you to believe at least that no want of zeal but deficiency of ability only prevented them from becoming more worthy of your confidence; nor can any imperfection in all that I am going to propose to you, have originated from an inadequate appreciation on my part of the vast importance of Mr. Stephen Girard's munificent bequest. I consider it of an historical importance. In a country like ours, in which government cannot, according to its institutions, as profusely disburse the money of the people for the support of science, as the concentrated governments of some great European nations have the power to do—in a time when the rapid growth of some of our fairest cities warns us that, at some future period, a part of their population may grow up unprepared to discharge the sacred duties of that full and entire citizenship which every one enjoys with us, if we do not wisely and in time provide against an evil, than which none can be imagined more directly at war with liberty—in an age when knowledge has taken a new start, many new sciences have been estab-

lished, and the scientific activity of man is directed with peculiar vigor and a general energy, not met with in any previous stage of the human family, toward the great aim of tracing out the laws of nature, and of making her serviceable to us by the knowledge of these very laws, and when most institutions of education founded in earlier times or modelled after them, are not adequate to this characteristic trait of our time—in a period in which, in the natural growth of the European race, that part of society which, inappropriately, is called the working class,* rapidly acquires an importance unknown before in

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* The expression working class or working men, must mean either those men who physically work, without thinking, in which case it will not be very acceptable to those who arrogate it, and a wind or watermill, working day and night would be the beau ideal of a working man, or it must mean men who work and think. But if this is meant, who is not a working man and who is? Is the physician who follows his vocation at any hour of the day, the lawyer who sits up late at night, the scholar who sacrifices his health to his science, a conscientious editor, whose work never rests, are all these who rise much earlier and go to rest much later than those who call themselves working men by way of excellence, no working men? Is a Humboldt, who braves in the pursuit of his noble and chivalrous career, fever, beasts of prey and insupportable insects, under a thousand privations; is a Champollion, who exposes himself to the burning sun of Egypt to learn the lessons of the past; is a Parry, a Ross, who dare the ices of the pole; a Davy, a Herschel, who enjoy no rest so regular, no health so sound, as that of any farmer—are all these no hard working men? The division is entirely artificial and untenable, and therefore if acted upon, highly mischievous. It is to be regretted then that so fictitious a thing is made, not unfrequently, a ground of political division, as though the interests of those who apply their mind to the changing and moulding of materials were separated from those who consume their productions or assist them essentially in discovering the best way of mastering the material. Where is the line of distinction between working and not working men? And if it were possible to draw it, why divide only these two classes? Suppose we should hear of a ticket of workmen in metal, opposed to another of workmen in wood, coalesced with the workmen in leather, or a type founders' ticket in opposition to a printers' ticket. Yet all these divisions would be, as to politics, equally rational.

The French *classe industrielle* is by far more comprehensive and expressive, and late English writers have therefore adopted the expression *industrial class*.

history—in this great conjuncture, a fellow-citizen of ours, a single, private individual, hands us on his death bed the key to his vaults, where he had hoarded regal treasures, and says, "use them for the education of those who need support in it most, and for the diffusion of knowledge;" indicating, but merely indicating, by a few more words, the course he wishes us to pursue. There is a simplicity and grandeur in this event, which cannot fail to inspire with enthusiasm all who shall be called upon to execute his great plan, and those who are engaged in preparing the way. Who, that contemplates but with a moderate degree of attention all these circumstances, must not be impressed with the momentous importance of the means which thus the testator has given into our hands, and can remain insensible to the imminent danger, which must result from a negligent application of them. But I am confident I need not any longer dwell upon this point. I trust, Gentlemen, that you are convinced of the uncommon value, which I attach to the whole bequest of our benefactor.

The rules which I have laid down for myself in drawing up the following plan are these:

1. To consider the implicit directions of the testator as the foundation and frame work of the whole;

2. To follow conscientiously the wish of the testator, wherever it is clearly to be ascertained by fair interpretation of his testament, and to be guided by the spirit of his provisions in general;

And wherever he has left us entirely at liberty:

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In this country we are all working men, and many individuals who do not belong to the industrial class are much harder working men, indeed, than those who do belong to it. If, therefore, I have spoken in various passages of the following pages of the great political importance which the industrial class has obtained in modern times, I wish by no means to convey the idea as if I consider their interest separated from the great interest of society in general. This would be aristocracy again.

3. To provide for the great objects of education in general;

4. To provide for the wants of our time;

5. To provide for the wants of our country in particular.

And here again I ought to observe, that though I may have erred in following these various rules, I have in no instance willingly and consciously deviated from them. It has been my anxious wish scrupulously to regulate my course by them alone.

I have therefore extracted from the will of the late Mr. Girard, all that he implicitly prescribes, and this introduction will further show you how I proceeded to ascertain his wishes not implicitly laid down in his instrument.

His implicit directions, all of which you will find again in the constitution, plan of education and regulations of discipline, and which I have underlined with red ink* to facilitate an inquiry in how far I have succeeded in regulating the whole by them, are the following:

1. A college is to be established for poor male white orphans. Page 12.

2. For such a number of these orphans as can be trained in one institution and can receive a better education as well as a more comfortable maintenance than they usually receive from the application of the public funds. Page 12.

3. The college shall be permanent; with suitable out-buildings, sufficiently spacious for the residence and accommodation of at least three hundred scholars, and the requisite teachers, and other persons necessary in such an institution as the testator directs to be established. Page 14.

4. The college and out-buildings are to be supplied with decent and suitable furniture, as well as books, and all things needful to carry into effect the testator's general design. Page 14.

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* In the printed copies these passages have been italicized.

(I shall omit Mr. Girard's architectural directions as irrelevant to my purpose, but I shall have occasion to recur to their general character in some subsequent remarks.)

5. A library shall be established. Page 18.

6. A room (of the College Hall) most suitable for the purpose, shall be set apart for the reception and preservation of the testator's books and papers; and he directs that they shall be placed there by his executors, and carefully preserved therein. Page 18.

7. Each building (of the college) should be as far as practicable, devoted to a distinct purpose. Page 19.

8. In one or more of those buildings, in which they may be most useful, he directs his executors, to place his plate and furniture of every sort. Page 19.

9. When the college and appurtenances shall have been constructed, and supplied with plain and suitable furniture and books, philosophical and experimental instruments and apparatus, and all other matters needful to carry the testator's general design into execution; the income, issues and profits, of so much of the said sum of two millions of dollars as shall remain unexpended, shall be applied to maintain the said college according to his directions. Page 20.

10. The institution shall be organized as soon as practicable. Page 20.

11. To accomplish that purpose more effectually, due public notice of the intended opening of the college shall be given, so that there may be an opportunity to make selections of competent instructors and other agents, and those who may have the charge of orphans may be aware of the provisions intended for them. Page 20.

12. A competent number of instructors, teachers, assistants, and other necessary agents, shall be selected, and when needful, their places from time to time supplied. Page 20.

13. They shall receive adequate compensation for their services. Page 20.

14. No person shall be employed, who shall not be of tried skill in his or her proper department, of established moral character, and in all cases persons shall be chosen on account of their merit and not through favor or intrigue. Pages 20, 21.

15. As many poor white male orphans, between the ages of six and ten years, as the said income shall be adequate to maintain, shall be introduced into the college as soon as possible; and from time to time as there may be vacancies, or as increased ability from income may warrant, others shall be introduced. Page 21.

16. On the application for admission, an accurate statement should be taken in a book prepared for the purpose, of the name, birth place, age, health, condition as to relatives, and other particulars useful to be known, of each orphan. Page 21.

17. No orphan should be admitted until the guardians or directors of the poor, or a proper guardian or other competent authority, shall have given, by indenture, relinquishment or otherwise, adequate power to the Mayor, Aldermen and Citizens of Philadelphia, or to directors or others by them appointed, to enforce, in relation to each orphan, every proper restraint, and to prevent relatives or others from interfering with, or withdrawing such orphan from the institution. Page 21.

18. Those orphans for whose admission application shall first be made, shall be first introduced, all other things concurring, and at all future times, priority of application shall entitle the applicant to preference in admission, all other things concurring; but if there shall be at any time more applicants than vacancies, and the applying orphans shall have been born in different places, a preference shall be given—*first*, to orphans born in the City of Philadelphia; *secondly*, to those born in any other part of Pennsylvania; *thirdly*, to those born in the City of New York, and lastly to those born in the City of New Orleans. Pages 21, 22.

19. The orphans admitted into the college shall be there fed

with plain but wholesome food, clothed with plain but decent apparel, and lodged in a plain but safe manner. Page 22.

20. No distinctive dress is ever to be worn. Page 22.

21. Due regard shall be paid to their health, and to this end their persons and clothes shall be kept clean, and they shall have suitable and rational exercise and recreation. Page 22.

22. They shall be instructed in the various branches of a sound education. Page 22.

23. Among them reading, writing, grammar, arithmetic, geography, navigation, surveying, practical mathematics, astronomy, natural philosophy, chemistry, physics, French and Spanish, and such other learning and science as the capacities of the several scholars may merit or warrant. Page 22.

24. The testator does not forbid, but neither recommends the Greek and Latin. Page 22.

25. He wishes the scholars to be taught facts and things rather than words and signs. Page 22.

26. He especially desires that by every proper means a pure attachment to our republican institutions, and to the sacred rights of conscience, as guaranteed by our happy constitutions, shall be formed and fostered in the minds of the scholars. Page 22.

27. If any of the orphans become from malconduct unfit companions for the rest, and mild means of reformation prove abortive, they should no longer remain therein. Page 22.

28. Those orphans who shall merit it, shall remain in the college until they shall respectively arrive at between fourteen and eighteen years of age. Page 23.

29. They shall then be bound out to suitable occupations, as those of agriculture, navigation, arts, mechanical trades and manufactures, according to the capacities and acquirements of the scholars respectively. Page 23.

30. In doing this the inclinations of the several scholars, as to the occupation, art or trade to be learned, shall be consulted as far as prudence shall justify. Page 23.

31. The testator enjoins, that if at the close of any year, the income of the fund devoted to the purposes of the said college shall be more than sufficient for its maintenance during that year, the balance of the said income shall be forthwith invested in good securities, thereafter to be and remain as part of the capital; but in no event shall any part of the said capital be sold, disposed of, or pledged, to meet the current expenses of the said institution, to which the testator devotes the interest, income and dividends thereof, exclusively. Pages 23, 24.

32. The testator enjoins and requires, that no ecclesiastic, missionary or minister of any sect whatsoever, shall ever hold or exercise any station or duty whatever in the said college; nor shall any such person ever be admitted for any purpose or as a visiter, within the premises appropriated to the purposes of the college. Page 24.

33. It is the testator's desire that all the instructors and teachers in the college shall take pains to instil into the minds of the scholars the purest principles of morality, so that, on their entrance into active life, they may from inclination and habit evince benevolence toward their fellow creatures, and a love of truth, sobriety and industry, adopting at the same time such religious tenets as their matured reason may enable them to prefer. Page 24.

34. If application is made, as many orphans as can be maintained and instructed within as many buildings as the square of ground (designated and described in the will) shall be adequate to, shall be received, and additional funds shall be furnished by the final residuary fund expressly referred to in the will. Pages 24, 25.

35. It is the design of the testator that the benefits of said institution shall be extended to as great a number of orphans as the limits of the said square and buildings therein can accommodate. Page 25.

I have been obliged to mention here a provision of Mr. Girard's, which, I apprehend, has caused considerable anx-

iety in our community, and nevertheless is clear, implicit and unconditional; I may, therefore, be permitted to interrupt, for a moment, the regular course of my introduction, in order to face at once this direction of the testator, which if not properly understood, may have the tendency to render the whole college unpopular, however sound the scientific instruction, which it will offer to the fatherless, or however thorough the discipline maintained in it, may be.*

Let us then ask at once, what can Mr. Girard have meant by the provision, given above under number 32, and which excludes every ecclesiastic not only from any chair or station whatever in the college, but even prohibits their entry as visiters into the precincts of that institution? Had he the intention, as I believe some fear, to exclude with the ecclesiastics and ministers, also religious education? He says distinctly, that "pains shall be taken to instil into the minds of the scholars *the purest principles of morality*," and even underlines these words in his will; at least thus I understand their being printed in italics in the copy before me. But who instils the purest principles of morality into the tender minds of youth without founding them on religious principles and without cultivating at the same time religion in their hearts? Is there a teacher who pretends to be able to do so? I know of none. We might, with equal justice, suppose Mr. Girard to have believed that "practical," or as it is more frequently called, applied or mixed mathematics, might be taught without previous instruction in pure mathematics, because he does not especially mention the latter among the sciences which he

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* After I had written this, and all the subsequent passages relating to the future moral education and discipline in Girard College, I received a copy of the Report of the Committee on Moral and Religious Instruction and Discipline, read to the Board of Trustees of the Girard College, B. W. Richards chairman, and it was a matter of great satisfaction to me, that my views on these important subjects coincide with those of the committee, with only a single exception.

wishes to be taught in the college. Can we ascribe an absurdity to him? He knew perfectly well that morals cannot be taught to youth without founding them upon man's relation to God—without religion. If we grant certain principles and fundamental truths, which can be conceived by religion alone, we may build up upon them a logical system of ethics without farther assistance of religion, but we could not teach such a system to children; besides, there is a vast difference between teaching an ethical system like a science, which in its sphere has its great value, and "instilling the purest principles of morality into the tender minds of youth," so that "from inclination and habit they will evince benevolence towards their fellow creatures, and a love of truth, sobriety and industry." They shall love their fellow creatures from *inclination*, and what shall *incline* their hearts to do so? how do fellow-creatures in the surest way evince benevolence towards each other? By considering themselves, what Mr. Girard calls us, *fellow-creatures*, which is, with other words, beings created by one common creator, and by looking upon him and his great attributes. A time has existed when a Helvetius and other philosophers strove to found all morality on interest, to explain all virtue by egotism. The time has past, and should we suppose that Mr. Girard had this heart-chilling theory in view, in the very moment when he provides for poor orphans, and when he uses an expression like that of "instilling the purest principles of morals," of which he well knew, that no member of that society in which he lived, and to whom he intrusted the execution of his dearest project, would understand it thus? It is true, the memory of Helvetius was cherished by him; he called a vessel after that distinguished writer, whose works, if we are justly informed, were found among the books constituting the small library of the testator. But a man may well admire the private character of Helvetius as a friend, a husband, a fellow-man, he may well be delighted by his style, and attracted by the acuteness and sometimes piercing consistency of his reasoning on untenable pre-

mises, and yet entirely differ from him in the conclusions he arrives at. Cannot a man even revere the stern probity of a Spinoza, standing the severest trials, and yet reject his icy philosophy?

When Mr. Girard says that the orphans, adopted by him, shall receive "a sound education," and knew that no one in his country has any idea of a sound education without the religious cultivation of those to be educated, would he not have used, had such been his intention, other language, more determinate words? There is in his whole will no expression of disregard toward religion; he calls the rights of conscience as guaranteed by our constitutions *sacred.* Surely, no right is called sacred, which permits us to do something which is not of the highest importance to our moral well being. Nobody speaks even of a sacred right of respiration. But I go farther. I maintain that, could we really believe Mr. Girard's intention to have been to exclude religious education from his college, we should have no right to let any orphan, dependant by poverty upon the support of society, profit by his bequest. Suppose a rich man should take it into his head to leave great treasures for the support and education of poor and parentless infants, on condition that their feet should always be tied, as long as they were thus supported, and should be crippled for life, would any magistrate or guardian of those infants have a particle of right to expose them to this benefit? Yet this absurdity would be but slight in comparison to the prescription of crippling their souls—the souls of orphans, who more than any other beings stand in need of that comfort, which alone can be derived from a knowledge of our relation to the creator, the fountain of all knowledge, and all morality. What teacher would degrade himself so far, as to enter into a college on condition that he should ruin his pupils, should deprive them of the most precious knowledge, and answer to all their questions which go beyond the bare sensible world, 'I have promised to leave you ignorant, and to withhold from you the very props

and staff which might support you in the sad vicissitudes of life, into which all of us have to enter, and to suffer; I might, perhaps, give you some balm, to heal, in years to come, painful wounds, which life will not fail to inflict upon you. Bereft of a father as you are, I might before all, teach you to find another and still better one, and to lift your innocent hearts up to him—but I entered into a compact to make you unhappy.'

Fortunately Mr. Girard himself has dissipated every doubt on this subject. After having expressed his wish that the orphans should be brought up in the purest principles of morality, he says, "that they may adopt on their entrance into active life, such religious tenets as their matured reason may enable them to prefer." He wishes then that they shall be prepared by the college for making a choice.

Now, there are but two ways in this world of making a choice between given subjects, trusting to chance or reflecting on the respective preference of the given subjects. In order to do the first, no knowledge of the subjects among which we have to choose is requisite, nor have we to exert our reason; to do the second, we must necessarily be acquainted with the nature of the given subjects, and must think. It is needless to say which of the two ways of choosing Mr. Girard meant, since he wishes that the choice should be made as matured reason may enable him who chooses. And, again, he italicises the words, "matured reason." He was, therefore, not only desirous that the orphans should receive a religious education, but that they should even be made acquainted with the chief truths of all religious sects, and how far they agree; otherwise, he might as well have demanded that the person or persons who should make the selection of books for the library, which he wishes his college to be provided with, should know nothing about their contents, in order to choose, with an untrammeled mind. It is insulting his memory to assert any such incon-

gruity. He wished to exclude dogmatics, and their variety—a bewildering confusion to a young mind, not religion.

But, if we thus have shown what Mr. Girard did not intend, it remains to ascertain what he did intend. His will gives the answer. It says, that the provision in question has been made, because, "as there is such a multitude of sects and such a diversity of opinion amongst them, he desires to keep the tender minds of the orphans, who are to derive advantage from this bequest, free from the excitement which clashing doctrines and sectarian controversy are so apt to produce." He wished then, the scholars of the college to be nursed up under the blessing and happy influence of knowledge, and a religion pure and peaceful, and neither of a polemic character, nor disturbing the hearts of the youthful by perplexing dogmatics. In order to insure this forever, he thought it necessary to exclude forever, all ecclesiastics from the college. He knew, undoubtedly, of many ministers to whom he would have cheerfully intrusted the management of his beloved college; but he knew also that religious controversy has an enticing power, and leads but too frequently to agitations ill adapted to an institution, which he wished to become and ever to remain an impartial seminary of knowledge to all sects and confessions. The framers of the constitution of the University of the City of New York had a similar exclusion of religious excitement in view, though, indeed, they did not resort to similar means to obtain their object. Mr. Girard thought that religious instruction and education might be afforded also by others than ministers; and, in fact, we see the same done every day in many schools; and he is not the first who thought it necessary to exclude the appointment of ecclesiastics, or ministers, in order to insure for generations an undisturbed instruction in knowledge. Men often resort to strong measures if they wish to insure a distinct character of certain institutions for all contingencies of future periods and the combinations of peculiar circumstances, which it is impossible to know and single out beforehand. I repeat it, our tes-

tator was desirous, in my opinion, to prevent his college from ever becoming either influenced by sectarian excitement or influential in it. Whether he has gone too far in his anxiety, praiseworthy in itself, by excluding ministers even from visiting the college, is another question. Many, and the writer of these lines for one among them, think that his zeal for liberality carried him even to illiberality in this instance, as Frederic the Great from a zeal to be just, became unjust. But who is not subject to err thus? It is useless, however, to discuss this point; his provision is implicit, and it is beyond our power to change it. It is sufficient for us to know that he had no intention to exclude religion from his college; and I shall be happy if those provisions in the constitution, which I have made in reference to this important point, shall meet with your and our fellow-citizens' approbation. I believe that if they are adopted, the scholars of our college will receive as much religious instruction, and a more truly religious education, than most other children. I shall have to return to this subject.

I now shall resume, Gentlemen, the thread of my introduction.

The broad principles which Mr. Stephen Girard prescribes as the basis of the institution, are then, according to the directions in his will, as given above, these:

*a.* It is to be a College [he never designates it by any other name];
*b.* For poor white male orphans; [1]*
*c.* They are to receive a better education than they generally receive by the application of public funds; [2]
*d.* They are all to receive a sound education; [22]
*e.* A moral and religious one; [33]
*f.* An intellectual one; [23]
*g.* A political one; [26]
*h.* A physical one; [21]

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* This number relates to my previous extracts.

*i.* Those who merit it shall receive a superior education, up to their eighteenth year; [28]

*j.* The chief and main sciences to be taught are, mathematics, pure and mixed or applied; [23]

*k.* Physics and chemistry; [23]

*l.* History and politics; [26]

*m.* English, French and Spanish; [23]

*n.* Latin and Greek, or classical sciences, are not to be made the basis of the instruction; [24]

*o.* The college shall prepare the scholars for those professions, arts, and occupations chiefly, which generally are not included in the so called learned professions; [29]

*p.* The instruction of each branch shall be a thorough one, not satisfying itself with words or signs; [hence, in chemistry and physics, experiments are indispensable; in mechanics, models; in astronomy, instruments and observations; in natural sciences, as mineralogy, specimens, &c.]; [25]

*q.* The college shall suffer in nothing; neither in a physical respect, nor in a competent number of teachers and agents, nor in the best qualified teachers, nor in instruments, apparatus, books, collections, furniture, or any other thing needful for a sound education; [3, 4, 5, 7, 9, 12, 14, 19, 21, 34.]

*r.* He demands that all the sciences be taught, which those who have paid particular attention to education shall find, or which, in the course of time, may become necessary; [23]

*s.* The college shall be planned in such a manner that it may gradually extend, and its sphere may gradually expand, without changing the original basis of the whole; [34, 35]

*t.* The college shall have undisputed power over the education of the orphans; [17]

*u.* The discipline on the whole shall be mild, and the college on the other hand must have liberty to dismiss unworthy subjects; [27]

*v.* The most scrupulous and conscientious choice of teachers, as well as of all other agents in the college, shall be made; [14]

*w.* The teachers shall be adequately remunerated; [13]

*x.* The scholars may, with the advice, and, if necessary, the direction of their superiors, choose their future occupation; and consequently, their preparation for it in the college may vary accordingly, in those sciences which are not deemed necessary for the formation and education of every one; [30, 23]

*y.* The college shall never lack in funds, however much it may extend its activity; [34]

*z.* No ecclesiastic shall ever be appointed in, or for the management of the college; [32]

Mr. Girard demands, that the orphans admitted into his college shall receive a sound, and those who merit it, a superior education. [See, above principles, *c*, *i*, *j*, *k*, *l*, *m*, *p*, *q*, *r*, *s*.]

I have been told that some persons fear, that the education which shall be offered by the college, cannot be more than a common education, nearly such a one as our primary schools offer. It is evident that such individuals, if there exist any, judge from vague and incorrect impressions, not from the document which contains the outlines of the education, which shall be given, because the testament contains, as we have seen, numerous and direct provisions to the contrary. It begins these directions by the expression of Mr. Girard's anxious wish "to provide for poor orphans a *better* education, and a more comfortable maintenance than they usually receive from the application of the public funds;" so that we see, that even those orphans, whose talents do not warrant a longer stay in the college, than to about their fourteenth year, an age indicated by the will, are to receive a better education. He allows others

to remain, according to their merits, longer; and as long as to their eighteenth year; he prescribes certain sciences to be taught in the college, which do not belong to a common education, such as chemistry, physics, astronomy, navigation, surveying; he, after having enumerated a series of sciences, leaves the whole field open, as it may be found useful and judicious; he provides his college with apparatuses, of all kinds; he directs French and Spanish to be taught. He calls the institution to be established *a College*, and never a pauper-school, or even simply a school; nor does he use (if he had been in want of a better sounding expression than pauper-school, yet one that was less distinct than college) the word Orphan Asylum. In short, he demands a better than common, a sound, and, as circumstances may warrant, a superior education. And, indeed, should we suppose that a man so intelligent in choosing his means for certain objects, so careful in wasting none, not even the smallest, had the intention to give two millions of dollars, and as much more money as shall be wanted—for what?—to effect that which every day is obtained by means a thousand times smaller; and for which most, if not all our communities have already provided years ago! Can a man like Mr. Girard be supposed to have been ignorant of the paramount importance of providing for poor white female orphans, when he tells us that he has "been for a long time impressed with the importance of educating the poor, (he does not in this general introduction to the provisions for the college make any difference between sex or color), and of placing them by the early cultivation of their minds and the developement of their moral principles, above the many temptations to which, through poverty and ignorance, they are exposed?" He was not ignorant of the circumstance that poverty exposes the female child still more to moral ruin than the male, and that their education, as future wives and mothers, is of the most vital importance to society. He was not ignorant of the immense good which may yet be effected by a better education of the African race; nor can we,

for a moment, believe him to have forgotten, that by his vast treasures he might have assisted all of these in obtaining a common education, even better than that generally afforded by public funds. But he preferred to limit his sphere of action, and to provide for a part of them only, a sound, and, if warranted, a superior education, which object alone would require his treasures, great as they were. He wished to provide for the instruction in some sciences as yet generally neglected, and to raise the standard of education. He was desirous to provide, first, for the ruling part of the ruling race, and to set an example to be imitated by others, according to their means, for the other part of our poor and fatherless fellow-beings. Besides, he actually leaves considerable sums to other and already existing institutions; he bequeaths ten thousand dollars to the Orphan Asylum of Philadelphia; he gives an equal sum to the Comptrollers of the Public Schools for the City and County of Philadelphia; six thousand dollars to erect a school in Passyunk township, &c. He, therefore, wishes that an education, different from that given in these establishments, shall be offered in the college, which he calls his "primary object,"* otherwise he might have given his treasures to these schools, or simply ordered similar ones to be established. He wanted then a different education, and if the education is to be *different*, we know well, from numerous passages of his will, that it shall be a better, not an inferior one. Be it once more repeated, he demands "a better education than commonly is afforded to orphans;" he demands a "sound education" for all, and a superior one for the meritorious; and an orphan once received into the college, endowed with fair talents, and conducting himself well, has a right and title to a superior education; which we dare not deny to the adopted child of the testator.

We live in a country in which knowledge and education is

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* See the Will of the late Stephen Girard, page 30.

so highly and generally esteemed, and where political rights put every one, poor or rich, so perfectly on a par with his fellow-citizens, that it is unnecessary to refute an objection to the greatest possible diffusion of knowledge, which, in other countries, has not unfrequently been made. The injudicious remark, that we have gone on so far without a certain knowledge, we may well go on for the future without it, is happily never heard here. The world also went on when all the commodities of Asia were brought by land to the Mediterranean, and via Venice, distributed over Europe, yet the discovery of the way round the Cape of Good Hope was nevertheless all-important. England, already the most advanced country in industrial activity, yet has made for the last ten years, the greatest efforts to enlighten her artisans and mechanics.

But, there are perhaps, some individuals in our country, I know there are not many, who fear that a superior, a thorough education, would produce in the scholars a distaste against their future practical pursuits. I believe the contrary, and experience bears me out. The scholars will learn how much any honest occupation can be ennobled; how its whole sphere can be expanded by knowledge, and at the same time how difficult it is to know too much for any kind of art or trade. The excellent Polytechnic School in Vienna,* which may be termed a

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* Immediately after the Ecole Polytechnique, which, under Napoleon, had reached its highest point of perfection, and sent forth men like Arago, Biot, Gay-Lussac, Pouëllet, Derpretz, and many other distinguished savans, had been restricted in its scientific education by the Bourbons, a plan was conceived to establish a similar institution in Vienna. It exists now as the most active and extensive, preparing its scholars for a much greater variety of occupations than the French. It is a peculiar trait of the polytechnic school of Vienna, that it affords to those who prepare themselves for mechanic arts, instruction in the various arts in workshops besides a scientific education, after the respective individuals had received first, an education in the polytechnic school, and then have worked for some time with a master-workman, in order to be prepared for the higher skill and information which is to be obtained in and on the various trades, in the poly-

University for Artisans, since all the sciences necessary for them, and all the chief mechanical arts are studied and practised there, has never yet repented its imparting knowledge to mechanics, but, on the contrary, it has been found to exercise the most salutary influence upon all the arts and trades, to procure to the Austrian mechanic, sources of wealth, which were unknown to him before, and to increase the national wealth by the production of articles superior to those in neighboring states; and the celebrated *Ecole Polytechnique* in Paris, which affords so excellent instruction, that Biot and Arago could, when they had but finished their education in the institution, throw off their pupil's uniform, and go forthwith to continue the great measurement of a degree, has never yet been reproached with spoiling the scholars for the manifold occupations for which it prepares, by giving a highly scientific education. I cannot help believing that this fear arises almost always from a very deficient acquaintance with the nature and effects of knowledge and science, or in other countries than ours, often from a base anxiety to prevent their all-penetrating effects. Men who entertain such views ought to read a work, which exhibits, in a masterly manner, the powerful effects of knowledge on the whole class, which occupies itself with obtaining, fashioning, and subduing matter,—Herschel's Preliminary Discourse on the Study of Natural Philosophy.* We must remember too, that in all cases, in which we wish to *apply* knowledge, we ought to be in possession of much more than that which merely relates to the point in question. Surveying makes use of but very few and simple geometrical truths; but he who does not know more

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technic school. The effect of this school has been such, that, according to a MS. which I received from a savant in the west of Germany, Austrian products, and manufactured articles, are valued at the great Leipsic and Frankfort fairs higher than those of other countries.

* It has been reprinted in Philadelphia, 1831.

of geometry and mathematics in general, than the solution of these few problems, will make but a very indifferent surveyor.

I am convineed that Girard College will offer some branches of education, superior to that which can now be obtained in any other institution in this country; and who would blame parents for regretting that their children cannot obtain an equally sound education, if they have chosen for their future occupation an art, for which the college prepares its scholars peculiarly well; but this can be no ground why we should withhold it from the poor and parentless. Should we, being possessed of adequate means, for an extensive and sound education, abandon it, because it is intended for orphans only? A distinguished writer of our country has justly observed, that the college would be only so much more republican in its character, if it were to offer a scientific education to meritorious and poor youths, which is as certainly true, as that it is truly republican to pay officers well, so that the offices may not be occupied by the wealthy alone. But children who have not been bereft of their parents, or who are possessed of property, *will* profit by the college. Machiavelli says, "after him who teaches men true religion, he is the greatest benefactor, who collects them into towns and villages and establishes governments among them;" and I would add, if I may add any thing to the words of that great and noble man, that after him who thus civilizes man, he is the greatest benefactor of a nation who raises the standard of education. If you raise the standard of education for a certain class, and certain branches, by the system which you will establish in the college, it will have the most salutary effect on the whole community at large.

We cannot abandon the wise principle, true in education as every where else: obtain the best and greatest possible effect by the given means in the given time. It is our bounden duty to adhere to it.

Having in my opinion, settled this point, the next question is, what is a sound education? As regards morals and religion,

necessary in a sound education, I have spoken already of them above, and you will find, Gentlemen, various provisions respecting this subject, in my proposed plan. The final end of all moral education must be the same, whatever the system of education may be, though its method may greatly vary. But what is a sound intellectual education? I conceive it to be that which *trains* the mind well, and *stores* the mind well.

The mind is well *trained*, when the education, adapting itself to the capacities and age of the scholar, leads him to think for himself, to judge and reason cautiously and correctly, to be ever awake to every thing that surrounds him; when it imparts to him a true love of knowledge and inquiry, and a sincere love of truth which makes him willingly obey its voice, and give up prejudices for better information; which gives him the best rules and guidance for study, and its farther pursuit after he has left the school, and when all his faculties are harmoniously and in the highest possible degree developed. You will judge, Gentlemen, whether I have proposed such means as to obtain best this end; more than general principles cannot be laid down in a constitution and regulations such as I have to lay before you; the selection of proper teachers, penetrated with these truths, and experienced in acting upon them, is of paramount importance to ensure success.

The mind is well *stored* if knowledge, the most desirable according to the means at our disposal, the allotted time, the wants of society in general and the future destination of the scholar in particular is imparted to it.

We have here arrived at that point of our inquiry, upon the correct appreciation of which the scientific character of our college depends.

What shall be taught?

I pass, of course, over those subjects, which as preparatory either for practical life, or for further study, are necessary to every one, and therefore cannot be omitted in an institution for the instruction of children of whatever kind it may be. To

find out those subjects which may be peculiar to Girard College, and which may belong to a superior education in it, the surest way will be, as I have indicated already above, to ascertain what are the demands of our age, what are the demands of our country, what are the demands of the testator? Happily they all agree,—a circumstance which, indeed, cannot surprise, since he who sketched out the fundamental lines of the college had ample and long experience, and manifold opportunities to become clearly impressed with the true wants of those who were to benefit by his bequest.

That numerous class of men which is occupied in producing, obtaining, fashioning, changing, transporting and exchanging material, and subduing matter by the application of knowledge, derived from experience and science, and which, as I have already stated, has been of late appropriately called the *industrial class*, has ever since the rise of free cities in the northern part of Italy, and the consequent and still more important growth of the free imperial cities and Hanse towns of Germany, steadily gone on increasing in importance, both social and political, until we find it, in modern times, by far the most important part of the population in all free countries. To show how this great revolution was brought about, how many great events were necessary to produce it, and again how much time was requisite to allow these great events to have their full effect, is one of by far the most interesting subjects for the student of history, and, at the same time, one of the richest in useful and salutary information; but it is evidently not here the place to trace it out. You will all allow the fact, which suffices for my purpose. This great change in the European race—the gradual elevation of the industrial class, was much accelerated by a new power, which, though of a totally different origin, joined the great current of this movement in the sixteenth century, and operated, thenceforth toward the same end. From the time when Copernicus and Galileo gave their momentous impulse to the sciences which occupy themselves with the

inquiry into the laws of nature, after the discovery of America, and of the passage round Cape of Good Hope, had enlarged the theatre of man's activity and inquiry, and when Bacon boldly drew the sponge over the whole table of the physical sciences, to have all written anew, as Pope Julius II. daringly ordered the fine fresco-paintings of Pinturicchio in the Vatican, to be broken down to make room for the purer creations of the immortal Raphaell, all those sciences have developed themselves with increasing rapidity, and a proportionate effect on every thing that concerns man, until we have arrived at that period, when the investigation of nature, and the thousandfold applications of the knowledge, thus obtained, to the various branches of industry, form one of its chief characteristics. Science was originally rekindled among the modern European nations, by the revival of classical learning, and all institutions for instruction were planned accordingly, but the increased importance of the industrial class, and the new sciences sprung up since that period, created a new want of learning, and of adequate institutions, to diffuse it, for which at last numerous establishments have been founded. They are the polytechnic schools in Paris, Vienna, Berlin, Hanover, Munich, Carlsruhe, St. Petersburg and many others.* The Prussian government perceiving the necessity of providing for the new wants in education, and the inadequacy of the classical schools alone, has lately founded

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* Even Egypt does not remain behind. The following is a translation of a passage in an article on Egypt, contributed by the distinguished geographer Mr. Jomard, to Balbi's Abridgment of Geography, Paris 1833, page 855. Speaking of the many improvements, mental and physical, which the present active vice-roy of Egypt has effected or intends to effect, and having mentioned the extensive medical school at Aboo-Zabel, about fifteen miles from Cairo, Mr. Jomard says: "The establishment of a large *Central-School*, is now in contemplation for the instruction in the most necessary sciences and arts. This gigantic project embraces the plan of a polytechnic school, and that of the different 'schools of application,' for the various branches of state service and public works, for the chemical, economical and mechanic arts, and even for commerce and agriculture."

polytechnic schools in all provincial capitals, with a view to establish, as fast as possible, similar ones in all the other cities which now possess *gymnasia* only.* They are the necessary effects of the developement of civilization and the very offspring of the wants of our times.

I apprehend that many persons in this country are under the impression, that a polytechnic school signifies an educational establishment, with more or less of a military character—a mistake owing to the circumstance that we read little of other polytechnic schools than the one in Paris, which has a military, and whose pupils even have much of a martial character. But this is merely accidental. When the plan of the polytechnic school was first laid before the revolutionary government of France, it could then be recommended indeed only by showing the advantage which would accrue to the armies from teaching mathematics, chemistry, &c. by forming better engineers, directors of powder-mills, artillery laboratories, &c. The whole attention of France was then turned toward her legions. The school itself, however, had no military organisation; Napoleon first gave it one, and most of its scholars entered the artillery or corps of engineers, after they had finished their course of education. In 1814, the pupils formed a corps, and fought nobly at Montmartre. Every one knows what a signal part they took in the revolution of 1830. (See the article *Ecole Polytechnique*, in the *Americana*.) Yet all this has nothing to do with the essential character of polytechnic schools. The name signifies, an institution in which a scientific and practical, not a classical education is given; thus the polytechnic school at Vienna, has the very opposite of a military character, as appears from a previous note. It prepares young men for the various occupations of practical life, for which no classical education is required. The expression *polytechnic*

* It is believed that within from ten to fifteen years, there will be as many polytechnic, as classical schools in Prussia. Gymnasium is the name used in Germany for the classical schools or colleges which prepare for the university.

*school*, will be taken in this work always in the latter and proper sense.

Science and application are so intimately interwoven in our times, that an artisan stands in a very different position from what he did in former ages. Civilisation brings every day new principles into action, and he that applies them, must have a proportionate knowledge of them. When all men were satisfied with hour-glasses, he that provided his fellow-citizens with instruments to measure time, could carry on his occupation with a knowledge very limited, compared to that of which he must be possessed who now provides the astronomer with a correct pendulum-clock, or a seafaring man with a chronometer. A navigator of the earliest times was not required to know as much, as the mariners who executed the noble plans of Prince Henry the Navigator, nor was a knowledge expected from them equal to what modern navigation teaches. If we consider one single department of modern industry only, machine building, nay a mere subdivision of it, the building of steam engines, what an extensive knowledge is not required in the artist merely to remain on a par with the progress of this branch. It is the same with all trades and arts. The Prussian government has even established a school for educating shepherds in order to provide the ennobled flocks, with persons, well prepared to take care of that important element of the national wealth of that kingdom. A modern nation that remains behindhand in diffusing knowledge among the industrial class, sinks relatively in all its power. We have an instance in Spain. But a few years ago the Spanish government abolished the chairs of natural philosophy in the universities, and when, under Charles IV., Balthazar Sarmiento, proposed to make the Spanish part of the Tagus navigable, the supreme authority of the Inquisition declared to the king, that "if God had wished that the Tagus should flow freely, he would have made of it that, which he made of all navigable rivers; he would not have thrown any obstacles into its course," whilst Brindley, humourously asked

by a committee of parliament, for what purpose he considered rivers to have been made, is said to have answered, "undoubtedly to feed navigable canals." This is, we all admit, extravagant, but it nevertheless shows the spirit of the two nations, of which we clearly see the effects. The one industrious and consequently powerful in the highest degree, and diffusing every day, more knowledge among the industrial class,* the other torpid, and consequently insignificant,—a state in which it will remain just as long as it does not turn to industry, and open all channels to knowledge.

In our country, where industry is in so flourishing a state, and knowledge so much valued by all classes, we have not yet a polytechnic school, that is to say, an establishment which affords instruction to all those who intend to choose, in active life, an occupation belonging to that great and important class mentioned above. Let nobody say, I would repeat, 'just because we are in a flourishing condition in industry without a polytechnic school, why should we establish one?' The answer is easy: in order to diffuse knowledge among all industrial classes, and to increase our national wealth, standing and hap-

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* Fifteen millions of copies of the Penny Magazine had been published within twelve months, and the average sale of the Penny Encyclopaedia, an excellent publication, had been, according to the report of a committee of the Society for the Diffusion of Useful Knowledge, of June 1833, thirty thousand copies of the weekly numbers, and forty-five thousand of the monthly parts. See monthly part of Penny Cyclopaedia, Part 611, July 3 to July 31, 1833. There was never in all history, a vaster engine for the diffusion of knowledge, brought into action than the two above named publications, which at the same time prove how much there may be done, in the field of sciences, which is acceptable to all classes, because it is evident from the immense number of copies disposed of, that by no means that part of the English population, which is most deficient in knowledge, alone constitutes the readers of them; and never has any society whatever acted more fully up to its name, promising so much, than the Society for the Diffusion of Useful Knowledge. Had Brougham done nothing else, than being one of the most active men, probably *the* most active man of all, that brought about this society, he would have a full and indisputable claim upon national gratitude.

piness, and extend the benign, refining and purifying influence of knowledge to every class. Let us put the question quite simply, and every one will easily give himself the answer. Is it better for the dyer, when he brings a knowledge of chemistry to his trade; for the brass-founder, and any mechanic, working in metals, a knowledge of the nature of metals, the effect of heat, their composition and decomposition; for the canal-builder, of statics and hydraulics; for the machine-builder, of mechanics, physics and machine drawing; the cabinet maker, of the nature of woods, afforded by technological botany and of the most tasteful and approved ornaments of all ages; the merchant, of commodities of the produce of the various nations; the manufacturer of the progress of manufactures among other nations, and of the manifold manufactured articles; the architect of the many branches preparatory to his occupation; the navigator of astronomy and higher mathematics, &c. &c. besides the instruction in so many branches useful to all practical men? and these are branches, a knowledge of most of which cannot be well obtained by private study, and a want of proper instruction in which, leads to innumerable failures, and an experience bought at a dear rate, so dear that it ruins many before they arrive at it. There is yet another point which requires consideration here.

It would be a very mistaken notion, were we to suppose that enough would be done, if general information in our country were kept only on the same level, and does not actually fall. Increased activity, as well as greater extent of our population, creates a greater variety of interests—interests which will clash with each other, and deride us, if we do not actively search for a remedy there, where we have to look for all, and every support in our whole national life—the diffusion of knowledge. The *Union* requires us to keep pace with the progress of knowledge, and, proud as the American must be, if he contemplates this characteristic trait of his country, which gives it so lofty a station among the nations of the earth, it also requires a greater activity and

watchfulness, in the same degree as knowledge is superior and more refined than common force. We must be fully aware, that it is not our lot ever to rest in security; we must *go on* in order to be safe; standing still, relaxation, would be with us ruin. A power, founded upon brutal force may for a time rest, as a granite block remains unchanged and strong, but organic life must be active, or it dies away. The fate of our nation, trusting entirely to knowledge, is that of the mind—there is no standing still; either onward, or ruin.

Certainly if any country wants a polytechnic school it is ours; the establishment of such an institution, would be to support and raise us in one of our most national branches of activity, and it would therefore meet at the same time with the greatest success. In addition to all this, it is, if I understand the testament right, the distinct demand of Mr. Girard, to form a polytechnic school. The sciences which he enumerates as being desirable to be taught in the college, and the occupations which he mentions, as those for which the scholars should be prepared in the same, are such as essentially constitute and require a polytechnic school. There is one institution in our country, justly fostered by the nation, which comes in some branches near to a polytechnic school, but, excellent as the United States Military Academy, at West Point is, and much information as we may derive from it for our purpose, the object for which it was founded, gives it a character much too limited for our purpose, as I believe it will appear from the succeeding pages.

But the great diffusion of knowledge and the consequent demand for it—for they go always hand in hand, has created another kind of institutions in our time, which we do not yet possess, and which yet are allowed on all sides to be highly desirable for us—for us perhaps more so than for those countries in which they already exist: I mean seminaries for the education of teachers. Our population extends daily further over our vast territory, knowledge is so indispensable an ele-

ment of our whole social and political condition, and the demand for teachers increases so rapidly, that we should—such is my humble opinion—ill fulfil our duty, were we not to make at once of Girard College a polytechnic school, and a seminary of teachers, for which it affords an opportunity not easily met with, since those scholars who wish to choose the honorable occupation of teacher, and whose merits warrant such a choice, may, under the guidance of proper professors, learn the art and science of education—a subject requiring much study—and the application of it with their younger fellow-scholars. We should act by such an arrangement in the true spirit of the testator; for two reasons. We cannot but suppose from so judicious and careful a man as he was, that he desired to lay out his capital to bear the greatest possible interest—to produce the greatest effect by his college. Now, as a horticulturist, who has the improvement of his country at heart, is not satisfied with raising a few trees that bear improved fruits, or domesticating exotic plants, but distributes the new seeds and plants to his neighbors, so we ought to make of the institution before us a true nursery of knowledge, not satisfying ourselves with educating certain individuals, but sending the seeds of knowledge every where, where wanted. Secondly, we know well, how much the testator loved his country—his whole testament is a continued proof of it—and we know equally well, that if knowledge is with other nations a power, it is with us the very life and soul of our whole national existence. There is nothing else among all possible things that human mind can conceive of, which can sustain us in the solution of our great political problem. It has been said so often, that its very triteness proves how generally we acknowledge its truth. Knowledge is our only safeguard. If you wish to render safe a remote part of a large city, during the darkness of night, light its streets. Darkness and danger, light and safety—between these we have to choose. If we then can do so much for our country by the diffusion of knowledge through

the education of teachers, our respect to Mr. Girard, and the duty to act in the spirit of his testament, alone would demand it, did not our hearts dictate it; and the President of the board, whom I have the honor to address, pointed perhaps, at this circumstance, when in his pertinent and eloquent speech on the fourth of July last, on occasion of laying the corner stone of the college building, he dedicated the institution to Education, to Morals, to our *Country*.

The scientific character, therefore, which I believe it is necessary to give to the college, is, that it shall be a polytechnic college, and a seminary for teachers; two things, which may be admirably combined, and I shall consider it as my happiest labor, if the following constitution shall appear to you to provide for these wants, and I shall thus contribute my mite to assist our nation in fulfilling its great and proud task, imposed upon it by history.

If we have thus ascertained what the "sound education" in the college is to be, it is easy to determine of what "its superior education" is to consist, since the superior education can mean only that education which belongs to the character of the college in general, in a superior degree. When I come to treat specially of the sciences to be taught in the college, I shall give my views more precisely on this subject.

In ascertaining the future scientific character of Girard College, I wish once more to direct the attention of the reader to the rules which I have laid down, to obey the testator's demands as well as the wants of our time and country. The latter may, and in the course of time undoubtedly will change. A polytechnic school, two centuries hence, will have to teach new sciences, or new parts of sciences already established; whilst certain sciences will always remain indispensable ingredients of a sound polytechnic education, as long as man remains man; such are mathematics, chemistry, natural philosophy—in short, all those which the testator has thought necessary to single out in his will. Many institutions of learning being

based on the precise state of science at the time of their foundation, and their power of expansion being too much limited, have, after the lapse of centuries, become inadequate to the wants of time. This is one of the great differences between German and English universities, the former having a great advantage in the comparison, and we must carefully guard ourselves against committing a similar error. As the testator has left us at full liberty to arrange and plan, so we ought to leave posterity at liberty to add to and modify that which we establish, as far as it is compatible with a general plan and character, firmly carried through, which is quite of equal importance. Whether I have succeeded in providing by my plan for these two wants, it will be for you to judge.

Principle *b.* demands that the college shall be established for poor orphans. I have already said, that it will become very desirable for other children and youths to be educated there, but, however painful it may be to some parents to see their children excluded from an education, which it may not be possible for some time to procure for them any where else in our country, it ought to be remembered on the other hand, that the testator has obtained one great advantage by his exclusion of youths of wealthy parents, and such as are not deprived of their parents. Whoever has occupied himself with education, knows perfectly well, how often the interference of parents or guardians, whose wishes from their individual point of view may be correct, injures the general cause of education in an institution.

School education, (and in fact domestic education also, in a great degree, but I speak here only of the former,) is a subject which requires such a variety of knowledge, the collection of so much experience, whether personal or made by others, that persons having paid no particular attention to it, and being guided by vague notions, or ill-applied tenderness of feelings, are very imperfect judges of what ought to be done in a school, and what is required by the true interest of those to be edu-

cated. This is felt all over the civilized world, and I am acquainted with a private institution, ranking among the first in Germany, which makes a full confidence of the parents in its director a condition of admission of their children. As soon as the parents assume a material interference with the education, which of course does not include any suggestions which parental anxiety may cause, the scholar is dismissed. We see, then, here, a private teacher coming to the same conclusion, which induced Mr. Girard to make that broad provision for his whole college, and for all times, that every kind of interference in the education must be given up, as a condition of admission. It would have been wise in him to do so at any rate; but had he any idea—as I have no doubt he had—that his college would raise the standard of education for a large class of our fellow-citizens, did he really wish that a college of an entirely new character, as to this country, should be established, as his will, I think, proves he did, it was peculiarly wise. A distinguished German teacher, Mr. Zarnack, is deeply impressed with the truth, that orphan asylums are peculiarly well adapted to become models for other educational institutions, and he has developed his ideas on this subject in a seprate work, which contains much that is applicable to our case. If then the testator has debarred us from extending the education (whether he does the same in every respect, with regard to instruction, is not so clear,) afforded in his college, to any other children or youths than to poor orphans, we must derive the greatest advantage from this provision. He leaves us unembarrassed and undisturbed, and we may build up a system of education just as we think wisest and best. What greater stimulus could there exist, to choose with the greatest wisdom, and to maintain with unrelenting energy? On the other hand, if we must receive the orphans on this condition, if they are thus entirely and absolutely handed over to us, and in every respect made dependant upon us, who would not feel the great responsibility, and feel called upon to make his best efforts to educate

them in the soundest possible way, morally, physically, and intellectually, that they may become good and useful men, enlightened and firm citizens?

As to the sciences and subjects in general which are to be taught in the college, we ought to guard against too kinds of extremes into which those, who are charged with the education of youth, not unfrequently fall.

In Germany, the scientific spirit, so diffused over that whole country, and a certain want of practical sense, sometimes induces persons to consider usefulness, if brought into any connexion with science, with a kind of disdain. It is, as if they fear to degrade science if they bring it down to the common concerns of men; as if it were derogatory to a learned man to occupy himself with that, which concerns by far the greatest majority of mankind; whilst in this country some persons attach value to nothing which they do not consider useful, and by useful they understand that only which can be turned immediately to account, or which stands in a direct connexion with physical well-being. Both are very dangerous extremes in education, (they are likewise in all other respects so). I have no intention to speak, here, of the vague and indiscriminate meaning, which, in the present time is often attached to the word *usefulness*, but must restrict myself to its meaning applied to the sciences to be taught to youths. Useful means always being serviceable for a certain object or purpose, and is applicable therefore to means only, by which the object in view is to be obtained, not to the object itself; and the object of intellectual education I conceive to be, as I have indicated already above, the training of the mind, the storing it with that knowledge which will be most serviceable to the individual in active life, and the imparting of a genuine and pure love of knowledge. By knowledge, serviceable in active life, however, we must not understand merely that, which can directly be turned to account in a certain occupation, but also all that which will contribute to throw light upon it, and to show its manifold connexions with other subjects and

the sources where it *may* derive farther light and information. Moreover, we must never forget, as I have indicated above, that, as science in general must always be considerably in advance of application, (astronomy was far advanced before Meyer could invent his useful lunar tables), so the knowledge of the individual must be in advance of his powers of applying it. A person knowing no more of arithmetic than the multiplication table, will hardly be able to make free use of it in occurrences of daily life, even in cases which require nothing more than the simple process of multiplication. And what would become of instruction in any branch of knowledge were we never to give it as a connected whole? He that is most perfectly acquainted with a whole science, will always be most capable of applying it; nor ought the expression, *training the mind*, to be so understood as implying general logical gymnastics only, if I may use the expression, but also the mental training for each branch of knowledge. The mind needs to be trained for mathematics, for physical sciences, for history, &c.; we see the effects of such special training every day in individuals, and have only to throw a glance at history, to see its effects in masses and in whole ages. An independent and inventive activity in any branch of knowledge, cannot exist without this special training. On the other hand, we ought to remember that it is necessary, at present, to learn so much, in order to be well prepared for life, that it is a teacher's duty to combine the three objects of intellectual education, which, happily, almost always can be done, nay, in most cases the pursuit of those three objects aid one another.

The other extreme to be avoided in instruction, is not to attempt too much, nor to confine the instruction to too narrow a sphere. The attempt at teaching too much, or rather a little of every thing, as frequent advertisements of academies confidently promise, must be compared to certain knives, which contain a common knife, a pen-knife, a little saw, a punch, a file, a pair of tongues, and many other articles, sometimes in-

cluding spoon and fork, none of which answers its purpose well, whilst the whole is a cumbersome, inconvenient article, which yet was intended for a compendious and portable work-shop. It is, instead of being much in a small compass, nothing in a large compass. Yet the other extreme—a pedantic restriction of the scholar to one or two sciences, until he is well versed in them, would be comparable to an attempt not to allow a pupil the use of his legs, until he had acquired all necessary skill with his hands, writing, drawing, playing the piano, &c.

I have endeavored to propose such provisions as shall prevent the one and the other; which shall induce the scholar to great exertion, without neglecting a due regard to his faculties; and it has been my constant object, to devise such a plan, as would allow at once the greatest extent of instruction with its closest adaptation to the gradual capacities and the ultimate wants of the scholars. It is with respect to this point, in particular, that I would invite your attention to the division of the whole college, into the preparatory, the common, and the high-schools, in which the respective average ages of the scholars will be from six years to ten; from ten to fourteen, and from fourteen to eighteen years, so that in each, a distinct course of education will be pursued. But, as Mr. Girard has settled the period at which the scholars shall leave the college, as from fourteen to eighteen years, so that the age of sixteen would be an age at which many will leave it, the course of the high-school will be so arranged, as to be composed again of two chief courses of superior education; the latter occupying itself with the more special instruction in certain branches, adapted to the future occupation chosen by the respective scholars. No scholar shall leave the preparatory school, nor before he has gone through the whole course of the common school, except in consequence of bad conduct or utter want of capacity. The latter will rarely take place, since I have proposed a *noviciate* before the final admission into the college. But he may leave the college when he has finished his education in the common

school or the first course of the high-school, without being expelled. His capacity, his choice of future occupation, and his conduct, will determine at what stage he shall leave the college after he has gone through the common school.

In order to establish unity, however, in all the different branches of instruction, and to make one step in regular succession, preparatory to the next, so that neither time may be lost, nor the mind of the scholar may be confused or drawn from a systematic progress in his study, I have thought it necessary to establish the four faculties, as you will find them below. They seem to me to be of great necessity, because order, and a steady and natural progress in study, are means by which much time may be saved, both in instructing and in maturing the mind. I take the liberty, therefore, to call your particular attention also to this proposal.

In respect to method, I have but little to say. I have given my chief views upon this important point in the regulations and the constitution. It has always appeared to me, that that method only, in education, is of great value, which is modified according to those to be educated, and him who educates. Method must be a reciprocal result between the teacher and his pupils. Great latitude, therefore, ought to be given to teachers, within those limits which the general system adopted in the college requires to be drawn. It is extremely easy to devise methods and to enforce them, but to act truly for the good of the scholar is not so easy. His own activity is, with me, the great principle which ought to be laid down with every method, if peculiar circumstances do not prevent it.

If the great mass of a community are untaught in the first rudiments of learning, it will be best merely to teach them these branches in the shortest possible time, as no modern civilisation can possibly exist without reading and writing; under such circumstances, it will be advisable to adopt the Lancastrian method. He who invented, or at least transplanted and developed it, deserves, undoubtedly, our sincere thanks; he has offered to many nations an ele-

mentary means of future liberty; because, still less than civilisation, can modern liberty exist, without reading and writing being universally known among the people. I have warmly acknowledged it in an early publication of mine, on the method of mutual instruction. It may even be advisable to adopt this method in the lowest classes of larger institutions of education, if certain circumstances require it; but, wherever time is allowed, or, wherever we aim at a higher object in instruction, this material method cannot claim to be admitted, except any instruction of the younger scholars, by the more advanced ones, be called a method of mutual instruction. If so, it has always existed in many institutions.

My proposal to divide the scholars into squads, with a first and second monitor at their head, purposes to secure a number of disciplinary advantages, to obtain some more means of properly and morally rewarding and inciting, to offer a more ready opportunity for the growth of those ties of friendship, which with orphans, deprived as they are of the tender enjoyments which spring from family ties, are of vital importance, and to awaken in the elder scholars a feeling of kindness and benevolence toward their younger brethren, to afford an opportunity to recall to the mind of the elder scholars a variety of subjects, which they have studied in the earlier classes, and to give one more opportunity to learn by teaching, which, it has been acknowledged in all ages, is of the greatest importance. I would not only restrict this principle to teaching; I would extend it in the greatest latitude, and say, there is no means of learning equal to our own practice, or the nearest approach to it, after proportionate preparation for it. Teaching a science, renders it clearer and more systematical in our mind; writing in a foreign language, gives a greater firmness than learning of the rules by heart; which, therefore, in no case, in learning the classical languages less so than in studying any other, ought to be admitted without the former: drawing maps and charts impresses the mind with distinct and indelible

images, and though there will be seldom an opportunity in colleges to build machines, the nearest approach to it is drawing them; astronomical observations and consequent calculations; personal manipulations in chemistry, &c. &c. settle the knowledge, obtained by theory, more firmly in the mind; and we cannot too much impress it on our minds, that teaching what the scholar has learned to others, and his own practice of what is taught to him, is of paramount importance in education. Hence the great necessity to allot sufficient time for private study, and to make actual instruction, as much as the capacities of the various ages permit, the guidance and correction of the former.

The division into squads with their monitors over them, when not actually engaged in lessons or lectures, is an arrangement, the good effects of which, I had an opportunity to observe at Schulpforta, one of the celebrated Saxon "prince-schools," on which also, Mr. Cousin, in his letters to the French minister of the interior, duke Montalivet, dwells with particular pleasure.* If we ascertain with distinctness, how far we may expect assistance from these monitors, how far they in general will be willing and able to make their authority respected, we may derive great advantage from them in every respect, moral, intellectual and disciplinary, but as soon as we allow ourselves to be carried away by a favorite idea, by a mere theory, we shall miss our aim. The *Ecole Polytechnique*, though established throughout on a military footing, and bestowing upon its monitors the rank of sergeants, found it necessary at several periods to expect less from their authority than, according to the original plan of the school, it had been hoped they would be able to effect.† It is certainly one of the wisest rules

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* *Rapport sur l'Etat de L'Instruction Publique dans quelques Pays de L'Allemagne et particuliérement en Prusse*, par M. V. Cousin, Paris, 1833.

† See A. Fourcy's *Histoire de L'Ecole Polytechnique*, Paris, 1828, and also *Annuaire de L'Ecole Polyt.*, pour 1833.

throughout life, and thus also in education: let every thing be done which is of real use, however novel it may appear, and give up every thing which is not really useful, however pleasing its theory or appearance may be, or however flattering the contrivance may be to its inventor. The similarity which exists between a state and a school, with regard to many points, is striking also in respect of the questions before us. Whatever is useless in politics, a power, a body, a contrivance—is worse than useless, is dangerous; because it causes in the course of time a fermentation which must eject it; nothing but what is real in politics is firm, and nothing but what is true in education is salutary, and does not create obstacles, or sometimes insurmountable impediments. It is extremely easy to proclaim some abstract principles and *force* politics accordingly for a time, but it is difficult to devise laws, which not only will sound wise, but will *operate* well, by far the most difficult part of all laws; and it is very easy to proclaim a school system, and sketch out the whole plan accordingly; but it is not so easy to be a truly wise educator, who has the greatest possible developement of his pupils at heart, and finds the means of obtaining this great end, by a faithful observation of their nature, and of human nature in general. Bacon's wise words, "Man knows, and can know of nature, only so much as he observes her," is true of moral nature and politics, as well as of physical nature.*

This short digression has led me at once to consider the discipline, which I should be desirous to see established in the college. Gentlemen, this is one of those embarrassing subjects, on which we must either write a whole book in order to develope our ideas as to many particulars, or give but a very few general remarks containing rather results than reasons, expos-

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* *Homo, naturæ minister et interpres, de naturæ ordine tantum scit et potest quantum observaverit, nec amplius scit aut potest.—Nov. Organ. Lib. I. Aph. I.*

ing ourselves to the danger of being misunderstood. It is impossible for me to do the first, and I must be content with the latter.

It is my opinion, as was remarked already with regard to *method* in instruction, that the discipline (the method of education) must be modified according to the teacher and the taught, the educating and the educated, if it shall be truly sound; yet some general points can be, and ought to be settled.

I am, both in respect to state and school, a warm advocate for the mildest, clearest, and fewest possible laws, and their strictest, firmest possible enforcement.

I am, both in respect to state and school, a warm advocate for those means of enforcement, which make the deepest impression, *i. e.* moral ones, wherever possible.

I am in respect to both, a warm advocate of means, which do not counteract the effect they are intended to produce.

I am, in respect to both, for the best means at our disposal.

I believe it one of the noblest attributes of man, to obey the laws of a free country,* and am convinced that one of the best means to prepare for it, is obedience to the school laws. I believe, that as there is no nobler obedience than that which proceeds from our free choice, so the scholars ought to be, whenever it is possible, acquainted with the true meaning and object of the laws which concern them, that they may obey them from free choice.

I believe that as in the state, there exists no greater power of government than its being popular, so there is in the school, no greater means of discipline to be placed in the hands of teachers, than that which they always can create themselves—being considered true and kind friends by the pupils.

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* This does not exclude the so called right of insurrection, which never can be a right, but it may well be a necessity of insurrection.

Lastly, I believe that however many points of similarity may exist between the state and the school, the comparison reaches only to a certain degree, beyond which it can lead only to a misconception of their respective essential characters, and to abuses hardly less injurious, in proportion to the more limited sphere of the school, than those, which have arisen from the comparison of state and family; which, being carried farther by comparing the monarch to a father, has caused so much misery, because it confounds the essential characteristics of two totally different things, the one being founded upon the idea of justice, right, equality, relations between men and men, the other, on the contrary, upon love and forbearance, relations between parents, children and kindred. What a family life, where every member should insist upon strict justice and abstract law! What a state, where a member cannot insist upon strict justice!* So also, any institution for education which, in its discipline, would strive merely to imitate the state—which some teachers have actually attempted—would act against the true character of a school. It is one of the chief objects, which teachers have to strive for, to establish between the pupils and themselves as many of the relations, which exist between parents and children, as possible—an object which becomes particularly necessary in a college, in which the *whole* education of *orphans* is given into the hands of the teachers.

The chief means of a sound discipline in an institution, where many youths are assembled for education, I conceive to be:

1. Cleanliness and punctuality;
2. Few laws and strict observance;
3. Scrupulous impartiality;
4. Kindness of teachers;
5. Constant superintendance.

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* I have developed my ideas upon this point in several articles of the *Americana*, such as *Sovereignty*, *Estates*, *Political Institutions*.

Cleanliness besides its physical importance, has always appeared to me to be of great moral weight, not only in the education of children, not only in respect to individuals of whatever age, but also to whole nations. I have found the proof of this in the observation of schools, of individuals, of nations and the study of history.

That great cleanliness is conducive to health, and thereby to a cheerful state of mind, if not counteracted by other circumstances, every one admits. But this is not its only, nor perhaps its greatest importance, if we speak of individuals who belong to those classes, in which great cleanliness is more or less the result of the individual's own activity and good habits, and does not, as is the case in the wealthier classes, surround the individual as a matter of course.

A person of cleanly habits will be orderly and therefore sober. Intemperance is but too often the consequence of slovenliness, and even where it is not, we can hardly imagine it to exist with an individual of strict habits of cleanliness. Great cleanliness has farther the most salutary influence upon self-respect—a virtue, or quality, however it may be called, often much neglected in modern education, and by no means inconsistent with that spirit of humility which our religion requires. Though no man can be truly virtuous and wise, without turning his attention inward and finding out his own deficiencies; it must not be forgotten that this does not exclude delicate feelings of honor and self-respect, but that they are, if brought into proper connection with our knowledge of God, and thus deprived of the poisonous admixture of egotism, most powerful moral agents both in adults and in the education of the young. There are many actions which are not tangible by the positive laws of ethics, which are not, if I may use the expression, wrong in doctrine, nor can they be clearly condemned on strictly religious grounds, and yet which an individual, in whom the feeling of honor is awake and active, would avoid. It would lead me too far,

were I to develope all my views on this very interesting and important point, but thus much I may be permitted to say, that the feeling of individual honor, is not only not opposed to christianity, but was chiefly developed by its influence, and though it was carried to an excess, and not unfrequently to caricature, in the middle ages, is nevertheless characteristical of christian civilisation, and has become indispensable to the moral well-being of modern society.

To return to the subject of cleanliness. I have yet to mention, that a person of truly cleanly habits must needs be industrious, (I speak again of the industrial classes) and thus of course will protect himself against a number of vices. The necessary association of ideas between, and the mutual effect of physical and moral cleanliness, have always been acknowledged, even in the remotest ages; we find the evidence in all early religious rites. But cleanliness is also of great importance in political economy and politics in general. Nothing raises so much the standard of comfort of a nation as general cleanliness. The most expensive habits of some classes cannot be compared in this effect upon national industry to general cleanliness, and it is thus that we always find that the cleanliest nations are—all other things concurring—the most industrious —the most powerful. On the other hand, as cleanliness promotes the feeling of self-esteem, and at the same time domestic happiness and comfort, it promotes at once, two of the most essential elements of civil liberty. The two freest nations of modern Europe, and the two most powerful (the one proportionately so) the antient Dutch and the English—were and are also the cleanest, whilst the two nations on the frontiers of Europe, the Portuguese and Russians, are equally distant from cleanliness and civil independence. Oppression and filth go always together.

Punctuality and order are intimately connected with cleanliness; in fact, the latter is in a certain point of view, but a subdivision of the former. That punctuality in the perform-

ance of every duty, and every business of the day, is one of the greatest means of discipline, and that the habit of punctuality is one of the best gifts which an institution for education has it in its power to bestow upon the scholar for his whole future life, is useless to develope any farther. The will of Mr. Girard supports us distinctly in this special means of discipline.

That laws ought to be strictly observed, and that their strict observance in school, is one of the best preparations of youths for after-life, in a country where the law alone is the supreme authority, will be admitted by all; and it is equally clear, that there must be few laws, if they shall be strictly observed.

Scrupulous impartiality is, indeed, a consequence of the former. Strict observance of the laws cannot exist without scrupulous impartiality, and nothing wounds a youthful mind so deeply, nothing shakes his whole moral belief and conviction so much, as if he sees an unjust act of his teacher. Teachers ought to be peculiarly careful that favor never steal into any of their acts or decisions. So deeply is the idea of the just—but another manifestation of the native feeling of equality implanted in the human soul, so clearly does it form the basis of all political relations, that even criminals will submit to any treatment, however severe, provided they see that no partiality mingles with it; but they will revolt whenever they can, as soon as they consider themselves treated with uneven favor.

If the conscientious and impartial teacher is animated by kindness, if he brings his pupils to consider him their *friend*, he has a power over them, which makes the whole task of education easy. Instructing, guiding, every branch of education becomes easy, as soon as the pupil considers his teacher as a friend; and if we look at the pages of history, how have those great men who produced the vastest and most lasting changes effected their noble end? By making friends of their disciples.

Lastly, constant and unwearied superintendence, in which however, the teacher has to appear as a friend and companion,

not in the character of a guard, will prevent innumerable trespasses of all kinds, and thus dispense with many punishments.

I have therefore recommended an ever-watchful, constant and uninterrupted superintendence.

Respecting rewards and punishments, you will find my views in the proposed constitution.

Reward and punishment have formed the subjects of much investigation and still more discussion of modern educators. My belief is, that certain rewards are not only justifiable but necessary and good; care has only to be taken that they are of the proper kind. There are few men indeed, who can do good without the hope of reward, of whatever kind that may be; still less can children, generally speaking, be expected to exert themselves mentally or morally without some additional stimulus to that which the consciousness of having done our duty may afford. And is it injurious if we implant inthe mind of the young, the idea that the good will meet with their reward as well as the bad? But let us beware not to nourish egotism or kindle vanity, or reward in a mercenary way, or by gratifying animal appetites only. These are difficulties, but with difficulties we meet every where.

Samuel Lee, the self-taught professor of Arabic in the University of Cambridge, whose great genius renders him peculiarly fit to judge of this point, says in his letter to Jonathan Scott, April 26, 1833: "Here (in the charity-school at Languor, a village in the county of Salop) I remained till I attained the age of twelve years, and went through the usual gradations of such institutions, without distinguishing myself in any respect, for as punishment is the only alternative generally held out, I like others thought it sufficient to avoid it." It must be a very deficient discipline which cannot even stir a mind of such uncommon energy and activity.

As to the special kind of rewards, I would always recommend to give them the form of prizes, which may be won by any scholar who chooses to enter the arena. Whether the prizes

shall consist in an honorable acknowledgment or a lasting token, such as a book, print, instrument, &c. must be left to be decided by those who will have to carry the plan into effect; but I would give prize questions in each class for each chief science every half year. It awakens emulation, and so far from fearing evil consequences in a moral respect, I believe that emulation is a noble quality, which ought to be cultivated, though carefully guided and properly rectified. It would be very inconsistent were *we* to subdue emulation in schools, whilst we live in a society, one of whose most prominent characteristics is, and which owes its unparalled success in a *great* degree to, emulation, which indeed has, as every thing else on this earth, also its evil consequences—many steamboat explosions are instances—but which, nevertheless, forms one of the best and most remarkable national traits of Americans, and which, in a school, we ought to foster, though at the same time to prune and regulate. I have never seen evil consequences in a school from emulation in a worthy cause. As the competition for prizes, such as I indicate, would not be a struggle between two different classes or schools, all the evil consequences would be obviated which the *concurrence* of the French colleges have produced, and of which all eminent Frenchmen, engaged in the course of education, justly complain, as inducing teachers to drill some of their best scholars, merely in order to win the prize, while they neglect the others. I would recommend also not to allow any scholar to win a prize in one science, if he is below the common level of his class in any other science; at least his proficiency ought to be fair in most branches. I would therefore recommend that whoever wishes to win a prize, must enter for several important branches, to be designated, and a prize cannot be won in one science if the labors in the others have not been at least fair. The higher the classes, the more important of course the prizes ought to be, though the competition there may take place once a year only. As to the prizes for scholars of the highest class, I would strongly

recommend some reward, the benefit of which he who obtains it, would reap after he has left the college, e. g. some kind of support for the more efficient learning of his art or occupation, or if he can earn or obtain otherwise a part of the means for travelling, which is of the greatest importance in many of those arts which will be chosen by scholars of the college, to add a certain part. The college would have thus the great advantage of guiding, in a degree, the studies of its best scholars, even after they have left the college, and thus confer a great benefit upon our community. Suppose mining, and especially the mining of metals, becomes still more important in our country than it is now, would it not be useful, if the college would partly assist one of its best former scholars to go to other countries in order to study this branch of industry, and could make a plan of the journey, and the studies in foreign countries, a condition on which it would afford assistance? I would make it a distinct rule, that no person should ever obtain travelling assistance, without laying first a clear and detailed plan and account of the objects in view, before the college.

Whether the distribution of prizes oughtto be public or not, seems to me a question, which need not be answered on so general grounds as it is generally supposed. In countries in which every one seems to be animated by an unmanly desire for a ribbon or a title, and where it would seem that it were the general belief, that however intrinsic and great a merit may be, it obtains its final object only when it consolidates as it were, in a small ribbon, I should be opposed to public distributions of prizes. I should be decidedly against it in France, Germany, Italy, &c. I do not know whether I should be opposed to it in this country; the experience of the teachers in the college would soon decide this question.

I would never make better food a reward, though restriction in diet may be indispensably called for in certain cases and punishments; and to reward by money I hold in utter detestation. I think it positively ruinous to the young mind. Yet I

would not say that some services, performed by scholars, may not be actually paid for under certain circumstances; it may be very advisable to do so, but this does not belong to the subject of rewards. At West Point, cadets receive pay when they assist in teaching, and orphans, in the Potsdam Asylum, are rewarded in a pecuniary way for certain services which they perform for the whole, and which require a considerable degree of labor.

The confidence of teachers, and proofs of it, will always form the best and most convenient rewards for the current exigencies. But also lasting tokens, such as mentioned above, and prizes, will have a good effect if properly made use of.

As confidence of teachers is one of the greatest rewards, the withdrawal of it, will be one of the best punishments at our disposal. I never would punish by study; on the contrary, I consider extra lessons, or the permission to take books from the library, one of the best rewards. If a scholar has not studied or learned his task, he must of course, be made to perform what he has neglected, in those hours in which his fellow-scholars enjoy recreation, but study is not made in such cases a punishment. A powerful and proper punishment, particularly for improper language, insolence, &c. is the imposition of silence. It can be done; I have seen it practised, and I consider it, for a variety of reasons, an excellent way of punishing. It was used in antiquity, and in the middle ages, as a disciplinary means, and we ought by all means to resume it.

Public censure has been condemned by many, as imbittering the mind, and I certainly would always make use of this severe punishment but very rarely, and under peculiar circumstances; yet I would not deprive an institution for education altogether of it. Sound discipline, and sound charity toward the scholars require strong punishments in uncommon cases, and when the milder ones have failed in their effect, it is cruelty to deny them, if requisite—great cruelty, which may ruin the whole life of an individual.

I would oppose incarceration in a dark room under whatever circumstances; it prevents, as a matter of course, the occupation of the confined, and thus produces many evils, not unfrequently grave vices, but I hold solitary confinement in a light room, with proper occupation, and so that frequent observation may be easy, indispensable in large establishments for education. It will, if the institution is judiciously conducted, seldom be used, but it must be a disciplinary means to which the director of the whole may resort, if necessary.

For the same reason that I disapprove of confinement in a dark room, and for many weighty additional reasons, I would decidedly object to solitary dormitories. Dormitories ought to contain from thirty to fifty scholars, with one or two teachers among them. I hold myself so convinced that you all, Gentlemen, agree with me on this point, that I may pass over to the last subject relating to discipline, to corporal punishment.

I believe that it ought to be abolished in the common and high schools of the college. I have no sentimental objection to corporal punishment. I am for any punishment which produces the desired effect, without others equally or more grievous than the evil against which it is intended; and I can imagine some cases which might require it in single instances, but generally it is a very deficient, and often a vicious punishment. It produces in most cases no moral effect, but only fear or bitter passion, and besides it is often, if used at all, inflicted by a teacher, who himself is in a state of passion—one of the worst things that can happen in education, because a pupil never fails to observe it, and it degrades a teacher in his eyes, it makes him consider the punishment simply as something hostile, which in future he will endeavor to escape, but how he ought to avert it does not enter into his consideration. Hence it will produce, or favor deceit and lying, and will undermine that desirable state of good will and friendship between teacher and pupil, without which no good education, hardly any fair instruction, can take place. These objections are general, but in a

college we encounter the additional difficulty, that if corporal punishment is at all permitted, it can only be so after mature investigation, and must then be inflicted by a person charged with it. This person must necessarily be either a teacher, or, as I have seen in some establishments, one of the menial officers or agents. The latter is revolting to our feelings, and degrading in the highest degree to the scholar; as to the former, what teacher will lend himself to such service? But can we do without it in a large institution, where so many disciplinary means, at the disposal of those who educate in families, are wanting? I believe, we can; it is done in other orphan asylums.

In the great Orphan Asylum at Potsdam, are nearly seven hundred children, whose education has been often greatly neglected, before they enter the establishment. Yet Mr. Zarnack, its director, informs us in his Information on the Royal Orphan Asylum at Potsdam, Berlin 1817, that beating is no longer used; and confinement had, at the time he wrote the work, not taken place for half a year. Mr. Zarnack, it ought to be observed, is nevertheless, one of the soundest educators, free from all disposition to sacrifice the welfare of his pupils to any preconceived sentimental notions.

It is different with the preparatory school. There we shall have sometimes children under our care whose education has been neglected in a dangerous degree, and which cannot possibly otherwise begin but by the exaction of obedience. But how is this obedience, which is to constitute the commencement of their education, to be exacted? By moral influence? I speak of cases in which the scholar is not yet accessible by it, and can be rendered so only by first obeying. "Obey me and thou wilt begin to love me," said a great poet. It is clear that in these cases physical means of discipline must be resorted to, and corporal punishment is one of the readiest, which obtains the soonest, and in many instances with the least inconvenience, the desired effect. Yet even in these cases corporal punish-

ment ought to be inflicted with great discretion, and with a peculiar regard to the child's character. Corporal punishment, by which I understand here, always, beating and not confinement, produces in different children sometimes a directly opposite effect. You will find, therefore, that I have proposed in the constitution, that corporal punishment shall only be allowed in the preparatory school, and that there only it may be inflicted on such pupils, as the president of the college has designated, after mature investigation, to be in a state, which under certain circumstances requires this kind of disciplinary means. The scholar will thus feel incited to cause, by good conduct, this declaration of the president again to be annulled.

On a similar ground I have proposed to divide the whole college into three moral classes; the bad, the best, and those who belong to neither. If respective privileges are attached to the two better classes, which prove the confidence the teachers place in their members, this division cannot fail to produce a salutary effect. You will observe, it is not paying for good conduct, but it is attaching natural consequences to good or bad conduct, to which every scholar is exposed, or which every scholar may obtain. I hold this not only to be permitted, but one of the most desirable objects in education. I have seen a somewhat similar effect on a great scale, though in a different sphere, in the Prussian army. There exists in it a bad moral class, the members of which are subject to certain disabilities and privations of honors. In the regiment in which I served, there were two soldiers in this class. No one fought more bravely in the whole battle of Waterloo than these two, in order to get out of the class again.

The milder the discipline in the common and high-schools of the college, the more indispensable becomes, of course, the right of expulsion. Mr. Girard saw this, and provided for it accordingly; and, indeed, it would be bad husbandry of his capital, were we to allow unworthy subjects to prevent worthier ones from enjoying the great benefit, which the college

will offer. It is, therefore, necessary, not only to allow expulsion for bad moral conduct, but also for want of due application, the standard of which ought not to be low. You will find that I have endeavored to provide for this point in the constitution.

If we view once more the whole field of education, we shall find that all education must be either—

1. A moral and religious;
2. A mental or intellectual, which, again is either:
   *a.* Training, or,
   *b.* Storing the mind.
3. A political;
4. A social, (which embraces all that belongs to good breeding);
5. A mechanical;
6. A physical, or,
7. An aesthetical, (embracing all that belongs to the developement of taste, the acquirement in the fine arts, &c.)

I have spoken already of moral and religious education. I would add here, that I hold the reading of the Bible, and instruction in it, to be necessary. To the various reasons which may prompt us to make the Bible a subject of instruction, we must add one, often overlooked, namely, that the Bible stands in so manifold relations with every thing around us, and has influenced every period of modern European History in such a degree, that were we to discard it from the course of education, we should deprive the scholar of a key, necessary to the understanding of thousands of facts, occurrences, and expressions which it is indispensable for him to know, if he would become a well informed man. I should consider the education in a school, established in Asia, of whatever sect or religion its scholars might be, very deficient, were it not to furnish a knowledge of the Koran, because it would leave the scholar in ignorance on most relations of a political, religious, moral and

domestic character of the community in which he lives—a deficiency which, in my opinion, is one of the greatest that can affect education, since a watchful eye, and a constant disposition to bring every detached fact into connection with what we know already; and, again, to find out the true connection of all that we see and that exists with that which has passed, is, in my opinion, one of the most effective means of acquiring knowledge, and therefore an important object of every sound education. It sharpens the power of observation, and the faculty of thinking, it elevates and expands the mind, and is one of the best antidotes against the subtle poison which egotism and vanity are ever ready to infuse into all our views and feelings. But, I shall have to say more on this point, when I speak of instruction in history.

Though, however, I recommend the reading of the Bible, I cannot but urge at the same time, to give extracts of an ethical and historical character only into the hands of the young. Whatever may be thought on this point, by many persons of the best dispositions, I cannot give any other opinion than that which experience and mature reflection have taught me to be the best. I hold it to be dangerous to give the whole Bible into the hands of children. There are innumerable parts of it which not only are unintelligible to children, but which, if not properly understood, may lead to alarming consequences.* There are many passages which would acquaint them with things unfit for the youthful mind. Nor do I believe that the character of the Bible does, at all, require that they should possess the whole. The difference of ages, and respective capacities and wants of the mind, are as well an order of things decreed by the infinite wisdom of the Creator, as the great variety of con-

* For similar reasons I have proposed, in a work on the Penitentiary System of the United States, to give only extracts of the Bible into the hands of the prisoners. Their judgment is, either by their own neglect, or originally by that of others, limited, weak, and uncultivated.

tents of the Bible; and, to act wantonly or negligently against the one, disagrees as much with the obedience we owe to our Maker, as the neglect of the other possibly can do. The Germans have long been in the custom of providing their growing generation with such extracts; and, I would ask those who insist that the whole Bible ought to be given into the hands of children, whether, having done so, they read with them, all parts of it? Do they go through all parts of the Old Testament with their young pupils, to whose tender minds many passages cannot be but startling? But, if they do not read all parts of the Bible with children, why leave the whole in their hands and excite their curiosity to read those passages which we do not wish to make them acquainted with, and which, having all the attraction of a forbidden fruit, they will often secretly search for? Do we not make selections in natural history, in history, in every branch of knowledge; or do we teach them without any regard to age, all the sexual relations, so important in zoology, all the crimes, intrigues and vices in history, so necessary to be known for its correct understanding, all the vicious customs and habits of various nations, so indispensable for a thorough knowledge of man?

In the fourteenth report of the Commissioners of the Board of Education in Ireland—a board chiefly composed of prelates and clergymen of the English Church, at the time the report was drawn up—we find the following passage:

"In the selection of books for the new schools, we doubt not but it will be found practicable to introduce, not only a number of books, in which moral principles will be inculcated, in such a manner, as is likely to make deep and lasting impressions on the youthful mind, but also ample extracts from the Sacred Scriptures themselves, an early acquaintance with which we deem of the utmost importance, and, indeed, indispensable in forming the mind to just notions of duty and sound principles of conduct.

"It appears to us, that a selection may be made, in which

the most important parts of sacred history, shall be included, together with all the precepts of morality, and all the instructive examples by which those prospects are illustrated and enforced, and which shall not be liable to any of the objections which have been made to the use of the Scriptures in the course of education."—"The study of such a volume of extracts from the Sacred writings, would, in our opinion, form the best preparation for that more particular religious instruction, which it would be the duty, and we doubt not, the inclination also, of the several ministers of religion to give at proper times, and in other places, to the children of their respective congregations."

You will find, Gentlemen, an article in the constitution, by which I propose to provide for the want touched upon in the end of the quoted passage. Of what character the intellectual education ought to be, I have already endeavored to ascertain, in previous passages of this report, and I shall speak below more of various branches of knowledge.

I have, likewise, touched already upon political education. It seems to me, in all free countries, a subject of great importance, particularly in ours, where every citizen is called upon to *act* politically. Mr. Girard clearly indicates this branch of education by the provision in his will, which I have enumerated above, under number twenty-six. A pure attachment to our institutions cannot exist without a knowledge of them; and it seems to me, that the college ought to make it one of its prominent objects of education:

1. To instruct the scholar as to the political character of man in general:

2. To give a clear insight into our institutions, which, though dating from certain days, and warranted by written documents, cannot be understood without a knowledge of our and the English history—without a knowledge of the elements which constitute the whole of our political system, which, though apparently simple, is, and necessarily so, a complicated one. It is,

as I have observed elsewhere, the *operation* of an institution, not its written sketch, which chiefly characterizes it.

3. To make the scholar well acquainted with his future political duties, and their practical exercise. This point seems so important to me, that I have proposed to myself, if no abler person should undertake the task, to draw up a catechism of political duties, such as every one is called upon, in our country, to exercise.

4. To instruct the scholar as to the mechanism of nations, under which head political economy would largely enter, or which is political economy itself, in its widest sense. The community and country in which we live, its industry, commerce, and productive power—in short, the whole activity of that society to which we belong, are subjects, at least as important in education, as the knowledge of nature around us; and Miss Harriet Martineau has shown, that these subjects are susceptible of being adapted to various capacities and ages.

There is a subject, connected with this matter, and relating especially to number three, above, which has received as yet very little attention from philosophical minds, and which, nevertheless, requires a full inquiry, since the chief political activity of the European nations, and their descendants, is turned toward the developement of liberal institutions—I mean, the *practice of liberty*. There exists no scientific and thorough investigation of this paramount subject, whilst we have numberless works on the theory of liberty. Every thing, in this province, is yet uncultivated. Whether a citizen must, or must not belong to a party; how far he ought to go with his party, or whether he ought always to follow his own opinion and conviction; how far, and in what matters, he may vote and act, following in doing so, others, in whom he trusts more than himself, or whether he ought never to vote except in cases in which his information and capacity enable him to arrive for himself at a clear decision; whether a free government can exist without parties, and if not, what a party ought to be; whether an op-

position is indispensable in modern free governments, and if so, what ought to characterize a sound and patriotic opposition; how far it may extend its opposing activity, and where it must cease; how far, and in what cases it may make use of means of "party *warfare*," or whether opposition can, and ought always to exist without it; whether pledges may be exacted from representatives, under what circumstances, and how far they ought to be considered binding; how the two essential points of modern free governments—namely, that the representative, is a true representative of his constituents, and that their assemblies are deliberative assemblies, where information is to be gained and views are to be exchanged, can and must be made to agree, so that the assembly neither becomes a diet, the members of which have but to vote according to instructions, nor that they lose sight of their constituents; how far certain powers, though unconditionally granted by the constitution, *e. g.* the veto, pardon, &c., ought to be made use of, to remain faithful to the spirit of the constitution; the whole chapter of caucuses—these, and a hundred other points, have yet to be reduced to general rules by a calm judgment, unbiassed by any specific case. There exist many treatises on the art of ruling prepared for monarchs—no thorough one, not even a fair one, on the art of self-ruling—the true *autocracy*. Yet it is necessary that these inquiries should be made, and the united efforts of many gifted men should gradually settle points respecting this unexplored field of human activity, as it has been done in many other branches. We want another Hugo Grotius.

But, though the beginning of this interesting science lies yet before us, we ought, nevertheless, to instruct our scholars as much in all matters belonging to it, as it is in our power.

As to social education, there cannot be in a college so great a variety of opportunities for cultivating it, or for the teaching and practising of good breeding as in a family, but those which it offers—and they are not a few, ought to be carefully improv-

ed in order to foster a branch of education, which is much more important for future success, and even in a moral point of view, than many persons seem to be aware of. If a college does not afford such a variety of opportunities for the practice of good breeding as a family, we must consider, on the other hand, that in the latter they are frequently neglected, and all, or most of the scholars of Girard College, would have learned little in this respect, had they not entered it.

Respecting mechanical education you will find that I recommend to erect some workshops. I understand that it was the intention of Mr. Girard to give directions to that purpose. However this may be, I consider them of great importance in education, not in order to instruct in some special arts for their practice in after life; all that possibly can be learned in this respect in a college, may be learned much quicker, and more conveniently at a later period, when the scholar is bound out. But the reasons why I have always considered the cultivation of mechanical skill of importance are the following:

1. If properly selected and judiciously used, mechanical arts are conducive to health, afford a convenient recreation, and, being a great amusement to the scholars, also, by the prohibition to practice them, an equally convenient punishment.

2. They give a general skill, an art to help ourselves, which to the latest period of life is of much use.

3. They give a general practical knowledge of the principles of mechanical arts, which on many occasions of our life, whether we are engaged in the practical arts or not, is called for, and which always will form a ready nucleus for much valuable information, to which, without that knowledge we remain strangers.

4. It is another means by which we place ourselves in contact with the world around us—an object which I have already described as being highly desirable in education.

Of what kind these arts, in which the scholars may engage, ought to be, is a question the answer to which depends much

upon a variety of circumstances, and ought to be regulated partly also by the dispositions of the scholars. Generally, labors for which the use of fire is necessary, interest the young much more than others. This is probably owing to the greater variety which these labors offer, and also—I believe chiefly—to the circumstance that the desire of fashioning and moulding, so deeply implanted in the human soul by its creator, that it shows itself in all ages of the individual, and all stages of nations, and that man rarely touches a raw material without changing or shaping it, even where the object, next in view does not require such a change, has much more opportunity to satisfy itself in the different labors for which we use fire than in other labors. The greater difficulty in overcoming the material, and yet, at the same time the greater pliancy of metals, than that of wood may be additional reasons. In all labors in metal, man creates more by his own skill from the roughest material, than in wood, which he receives from nature in a state much more perfect, as to his use, than metal. There is also a greater variety of knowledge connected with the different labors in metal, than in wood or other materials. Metals require the application of a greater variety of principles.* But it is on the other hand much more difficult to introduce this kind of labor into an institution for education, than labors in wood, such as turning, joiner's work, &c. Experience alone, I believe, can decide on this point; yet I consider it by no means impossible to introduce certain arts, which require the use of fire, into the college.* Gardening must also

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* The importance of labors in metal, and their bearing upon civilisation, is strikingly exhibited in most mythologies. They almost all teach, that a god descended to teach this important branch, whilst no divine interference is mentioned as to the cultivation of work in wood.

† I find that as early as by Sir Mathew Hale, in his Counsels of a Father, "the more cleanly exercise of smithery, watch-making, carpentry, joinery work of all kinds," is recommended. Why he calls "smithery" cleanly I know not. Its not

be mentioned here. It appears to me to be very useful, both as providing the scholar with much knowledge which will be serviceable to him, and procuring him much pleasure in many situations of his future life, and opening his heart for pleasures of a tender kind. You will find some provisions accordingly. It is well known that we shall act but in the spirit of our testator, who was very fond of horticulture, if we give to the pupils an opportunity to acquire knowledge in the different branches of gardening, whilst the ground which he left for the sole use of the college offers as much land as we want for this purpose.

In a similar way, as we can make of Girard College a seminary of teachers, respecting the diffusion of scientific knowledge, we can also make it a seminary for the diffusion of knowledge of a mechanical kind. For instance, if it is believed that a whole new branch of national industry might be created, and a great addition to our national wealth might be acquired by the introduction of the cultivation of silk, of which one of our most distinguished fellow-citizens is so confident, and in my opinion justly so, the introduction of this important branch of industry, might, perhaps, be assisted through the college.

Respecting physical education, I am glad that the time has past when it was necessary to combat prejudices against gymnastic exercises and sports, which are now very generally considered as indispensable to a sound education, provided they are practised progressively and under proper superintendence. If they are necessary however, every where, they are especially so with us, in a country which borders on a wide sea and boundless land almost uninterrupted by high mountain-chains, and over which immense masses of air freely sweep in extensive ranges, subjecting it to sudden and violent changes of the

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being cleanly is one of the objections (though not an insurmountable one) to introducing it into a college.

atmosphere. There are still other reasons in our climate, such as the great difference between the seasons, the comparatively new cultivation of the country, &c. which require that we should strengthen and harden our body.

If this report does not contain a plan of progressive gymnastic exercises, it is, because I should have necessarily made use of numerous names unintelligible to most of its readers, and thus would have conveyed no clear idea of them; but as I am practically acquainted with the details of gymnastics, I am ready at any time to furnish you with such information as may be desired.

I have also recommended to erect a swimming school. It can be done at very little expense, and with perfect safety to the scholars, if it is erected on the plan on which I established a swimming school at Boston. It is my opinion, derived from experience, that we can prevent the injurious consequences of the sudden changes of our weather in a great degree by invigorating the skin; and this desirable object may be obtained with many persons by frequent swimming, not merely bathing. I have witnessed in Boston the most satisfactory effects of daily swimming during summer, with children as well as adults. This was in salt water, it is true, but though fresh water will not be equally effectual, it will be so in a great degree. Swimming has besides the great advantage, that we can practice it in a season, when we must dispense with most other gymnastic exercises; and again, as it affords much pleasure, it also affords by prohibition, a convenient punishment.

The Schuylkill affords an excellent opportunity for a swimming school; as the scholars will be able to make use of the swimming school at certain hours only, and as it is desirable that as many children and adults should learn to swim in a safe way,* it will perhaps be advisable to allow the use

* The method which I introduced into the Boston swimming school, is that of General Pfuel, after which swimming was first taught in Prussia, and which is now ommon in many other countries.

of the swimming school under certain regulations to others also.

But if gymnastic exercises are generally acknowledged to be necessary in the education of children, the public do not entertain equally sound views respecting all subjects connected with the health of children. We have fallen, in this country, into a most deplorable error, respecting the instruction of very young children—deplorable both as to the injury which we do to the health of these tender beings, when we begin to teach them in schools in their third or fourth year, and to the mind by forcing such food upon it as most books written for this purpose contain! Sound health and quick senses are, besides the cultivation of pure feelings, the most necessary to be fostered in the tenderest age. Instead of letting them freely observe, and telling them good stories with impressive pictures, we have astronomies for infant schools! Thus we deaden all powers of perception, whilst by other books, ideas the most erroneous are impressed upon the mind, which it costs much time to efface again. In a volume of a long series of such infant books, the whole idea, which the author has thought worth conveying to his pupils of Germans, is, that they talk much and wear wide small-clothes; whilst the explanation of what a king is, is followed by a crowned personage, dressed in the fashion of about Henry VIII, disdainfully refusing to give alms to a woman lying on her knees! These are not two instances related from a few, the whole series of these publications, which sell rapidly, swarm with ill-adapted and incorrect instruction or such ludicrous representations as I have just mentioned; and he who denies that it requires much time and study to erase again these early impressions, cannot have paid attention to man's process of acquiring knowledge. It is impossible to educate young children without great activity and interest in them by the teacher. Putting books into their hands is not educating them. The children which we shall receive, will not be infants, yet I would invite the most particular attention to the healthful

and vigorous developement, both physical and moral, of the whole preparatory class, with a particular view of avoiding the alarming mistakes, now popular among us. The time will come when the Americans will arrive at the same conclusions, the Germans have come to, that all this mental cramming of children, brings nothing but ruin. "Tell them stories, and let them tell you," is one of the best rules for early education, and waken their senses. I should have felt called upon to dwell longer on this point, had it not been treated on in a most creditable way in a late publication, to which, Gentlemen, you must permit me to invite the attention of those of you, who have not yet made themselves acquainted with this work, it is, Remarks on the Influence of Mental Cultivation and Mental Excitement upon Health by A. Brigham, M. D. 2nd edition, Boston, 1833; a book, which at this time ought to be read by every one who has charge of the education of any child. I beg you to read it.

The aesthetic education, or the cultivation of taste, and the sense of the beautiful, is more important than many believe. In a moral point of view, it refines and elevates, and therefore has a beneficial influence on the soul; in a more practical view it is very necessary to numerous artisans, who by refinement of taste elevate the standard of their productions, and therefore the general standard of refinement and comfort—of national wealth. Drawing is in this respect particularly important for our college, and I shall treat of it more fully below. I have recommended the instruction of singing for four reasons:

1. Few things develope more the whole chest, and invigorate the lungs, if no decided predisposition to feebleness exists, than frequent, and, let me add, scientific singing, because it is there only that the tone is brought forth in all its strength and fullness, whilst natural singing has always a tendency to nasal tones, which of course are of little use as to invigorating the lungs.*

* It is a fact which I have observed with tribes that never were civilized, or nations which have relapsed into semi-barbarism, as the Greeks, that their song

2. All christian sects, with the exception of but one, use singing in their divine service, and certainly it is better to have good singing than bad.

3. It can become a source of great and innocent pleasure in after life.

4. It has, as all music, a salutary effect upon the human soul.

The instruction in singing is never dispensed with in German schools, colleges, &c. and I would make bold to recommend the appointment of a German organist, for the instruction in singing in our college. I believe that they understand generally this branch, more thoroughly than others. Their method is more sound.

Whether instruction in instrumental music, ought to be given to the scholars, is a point on which, in this country, probably very different opinions would exist. I for my part do not deny that I believe that music has a softening and refining effect upon him who practices it for its own sake, not for shining in society, and that by affording innocent pleasures it prevents, particularly young persons, from many evil habits, or vicious amusements. Trios, quartettos, &c. played by some young friends, afford a delightful and innocent enjoyment—a recreation from the labor and toil of the day, which may be enjoyed at home, or in the family circle of a friend, and which leaves, instead of regret, as so many enjoyments do, the pleasurable remembrance of hours spent in the happy intimacy of friends, for which the noble work of a Mozart, Spohr or Haendel, afforded the common bond. A distinguished philosopher, Mr. Jacobi,

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always consists of a nasal twang. The reason is, that a nasal sound is much easier to be produced, requiring less exertion than the full chest-tones, and oral exertion relaxes invariably with the decline of civilisation; compare Greek and Romaic; Latin and Italian; French, Danish, English, and their respective creole-dialects. The remark which I have made respecting nations and tribes, applies *mutatis mutandis* to individuals.

has said, that much very much would be done for mankind, could they be from the first, but persuaded to strive for what gives them really pleasure, whilst they seem all the time eager for pleasure and amusement, and yet pursuing only what gives them grief. What pleasures are many young men pursuing in their evenings, free from labor? I leave it to the reflecting reader, whether it would not be better to give to our children —not only to the girls, in order to shine in society, but also to the boys—in early years a taste for music, and foster it until they are arrived at an independent age. Friendship is a benign sun of the inward man, but friendship, like every thing else must be nourished or it fades away, and one of its best aliments is the love and cultivation of music.

The study of architecture, the use of engravings, and also the study of the masterworks in literature, considered as works of art, are other proper means of aesthetic education.

Permit me now, Gentlemen, to say a few more words on some specific branches to be taught in the college, after which I shall have but to add some remarks on certain provisions proposed by me in the constitution, before I have done with this introduction.

### The Art of Expressing Ourselves.

Language is the great bond of humanity, the means by which each individual manifests what he thinks; and there can hardly be too much attention paid to the art of expressing our ideas correctly in every respect, clearly, concisely, and in good taste. This is generally acknowledged, as far as this art relates to writing, but it is much neglected in regard to speaking, in a degree which would be inconceivable, did we not find a reason in the all-powerful effect which the art of printing had upon the European race, so powerful, that some whole languages have been chiefly cultivated by writing, and not by

speaking, and bear a stamp and character accordingly, for instance the German.

Yet we speak a hundred times before we write once, and though exercises, which perfect us in writing correctly and tastefully, cultivate also, in a degree, our speaking, yet there remains a vast difference between the free and cultivated use of the "breathing word," and that of the pen; it has therefore always appeared to me, that the art of speaking well, not only on solemn occasions, by way of oratory, but on all the many occasions created by the intercourse of men, ought to form a prominent object in every sound education. A person may write correctly and concisely, may express his ideas in a perspicuous and pleasing order on paper, and yet be unfit to relate properly, even so much as a short anecdote. That this art of speaking well is important every where, will be denied by no one, as soon as attention is directed to the subject, but in a country like ours, where so much business is transacted, so many affairs are treated in an oral way, it becomes peculiarly important. It would be the soundest, and in my opinion the only sound preparation, for the art of debating, and rhetoric in general. In Asia the art of relating is actually taught, and we ought not to hesitate to adopt whatever is good, even from that quarter. So much is the art neglected with Europeans and their descendants, that I find in the regulations of a large Orphan Asylum in Berlin, the prescription, that the boys should be taught to do errands well. Strange as this may seem, who has not had manifold opportunities of observing that even this low degree of the art of expressing ourselves, is rarely well understood? Were the art of expressing ourselves generally considered as indispensable, it would not have been necesary to single out this humble part of it. Let us observe farther, how few persons are able to relate clearly and agreeably a simple incident, or every day occurrence, to converse well, to give testimony in a court, &c. &c. I have given my

views on this subject fully, in an article on *Conversation*, which I wrote for the Encyclopaedia Americana.

As a good hand-writing is accessary, but not unessential to the art of expressing ourselves in writing, so is a correct and pleasing pronunciation, and a well modulated voice no unimportant accessary to the art of expressing ourselves orally—in fact, however desirable a good hand-writing may be, and I consider it of no mean importance, a fine enunciation is still more so. Social intercourse has, in the natural course of civilisation, become an important ingredient of our whole life, and social life consists chiefly in oral communication. Should we then not cultivate this main basis of intercourse? A proper education in this branch, must begin quite early; it ought indeed to be one of the first subjects of education.

To write and speak, or in one word, to express ourselves concisely, may well be called the flower of the art of expression, which, as it is so little cultivated with us, requires particular attention; it is an accomplishment which few, as yet, seem to acknowledge at all, and as our numerous daily and weekly papers offer a ready receptacle for unmeasured political papers, so that necessity does not oblige us to resort to conciseness, which forms an essential quality, for instance, of an officer's report in the field; we must cultivate it early with the rising generation, lest the greatest part of our people should be debarred from obtaining sound and necessary political information, by the very abundance of public statements. This excess has rapidly increased of late, and what man of business can any longer keep pace with all the reports and messages? Hence they miss so often their aim. Let our pupils learn their style from the commentaries of Cesar, rather than from the history of Clarendon; from the precise language of a Livingston, rather than imitate what might be called state-message style.

## Drawing.

Goethe has said, "we talk too much and draw too little." What can that great man have meant by this seeming paradox? I believe this:

By drawing we endeavor to give a representation of the form of things, and the form is the chief characteristic in nature, incomparably more so than color. He therefore that draws well, accustoms himself to see in all objects of the sensible world, the form, the more characteristic part; hence his senses convey to his mind livelier images, and impress it with more distinct conceptions, from which it works clearer ideas. Look at the difference in the description of a landscape, a building, an individual, given by a skilful draughtsman and one who has remained a stranger to this art. The words of the latter will flutter about the subject to be described, almost like the restless movements of a butterfly around a flower, but will never precisely hit the mark, like well-aimed arrows, whilst he who draws well, who sees the form, the characteristic *lines* in objects, will touch at once the distinguishing points.

We receive many more notions by the aid of the two nobler senses—sight and hearing, than through the medium of the three lower ones—taste, feeling, and smell; and again, many more ideas by the assistance of the sense of sight than by that of hearing. To give then distinctness and precision to this sense, and to cultivate in it the skill to see the characteristic lines in objects and to separate them from the more accidental appearance, is an object of the greatest importance, particularly in children and young persons, the clearness of whose ideas for their whole life, depends, in many cases, much upon the first impression. Persons who never see attentively, and whose eyes convey but dim images to the mind, never become good observers, and seldom close reasoners; nor does their memory

retain long these ill-defined images and superficial impressions. In the same degree as an impression is deeper, if the eyes assisted in making it upon us, so it is clearer and more lasting if good and well-trained eyes assist us in obtaining it.*

A mechanic, who cannot draw, will not easily give you a distinct idea of a machine, unless he has had so much to do himself with it that he is perfectly familiar with every part; an aid-de-camp cannot clearly report on a certain terrain, if he cannot draw, nor will a traveller's description of scenery convey well-defined images to our mind, unless he know how to draw. By drawing we learn to strip things of their casual appearance, of shades and colors, and our mind perceives the more characteristic outlines which belong to the form. Children and savages are dazzled by colors; in the Russian language *red* and *beautiful* is the same word; whilst the cultivated mind of the Greek sought for beauty chiefly in the form.† So much more essential is form in every object of the sensible world than color, that the word *shapeless* conveys, unconciously to us, an idea of disgust, of a crippled, highly defective state, whilst *colorless* is not necessarily associated with such ideas in our mind, and how much vaster is the idea of *fashioning* than *coloring!*

Those great models, after which the plastic spirit of nature seems continually to strive, consist in forms much more than in

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* I have given my views upon the importance of this subject, more at length in the article *Memory* in the *Americana*, to which I may be allowed to refer, in order not to repeat myself.

† It is characteristic of the antique or classical spirit and the modern tendency of arts, that the former strove more to represent the sterner form, whilst the latter endeavors to represent the more spiritual expression by colors. I do not depreciate, by any means, the modern art, particularly that of painting; on the contrary, the developement of the art of painting in preference to that of sculpture, was a necessary consequence of modern or christian civilisation. I have given my ideas on this subject in several articles in the Encyclopaedia Americana. But all this would only prove what I maintain above.

colors, and hence the reason why the ancients spoke of *prototypes*. Crystallography affords, in the pure mathematical models to which all crystallisations are approximations, but of which they are never precise copies, perhaps a more perspicuous instance of them than we can meet with any where else. Color, is the enlivening, beautifying, playful element poured out by the Creator over the sterner form; color is much more easily affected than form, (look at our domestic animals and plants) and is the ever-varying element of the creation, from the slight blushes of a youthful cheek, and the charm of flowers, to the ever-changeable colors of the skies. It embellishes and expresses the change, *e. g.* emotion, but it does not characterize so much as form, which expresses, to continue the comparison, the lasting traits of dispositions.

So important is the form of things, that one of the most elevated fine arts, sculpture, can occupy itself solely with it, whilst painting is, by no means, occupied solely with color; it has to represent by colors the form also; but sculpture makes not the slightest attempt to represent color.

I believe I have sufficiently shown the importance of form in nature; that the characteristics of things depend chiefly upon it; and it is evident therefore, that a mind taught to perceive them clearly and easily, will receive livelier impressions. How much, in modern education, the cultivation of our sense of form has been neglected, is a subject on which I do not wish to enter here. Every day gives us proofs of this great neglect, and I was therefore much gratified when I heard one among you, Gentlemen, expressing himself some time ago to this effect, "drawing ought not to be left at the option of a scholar; a child *must* learn to draw as it *must* learn to write." How he came to this just opinion is clear to me; he is a mineralogist, and the enquiries into crystals have taught him the superior importance of form to that of changeable color.

To cultivate still more this sense of form, I would strongly

recommend modelling, which is as amusing to scholars as it is useful, especially to those who, at a future period, intend to engage in any occupation, which has to do with the moulding and ornamenting of some material; in short, in an occupation for which the cultivation of taste is of importance, and to which all those arts belong which provide us with articles of domestic comfort.

I hope I am not misunderstood, as undervaluing the sense of color. Its cultivation is also important for the clear perception of things, and the application of many arts and trades. I wish a proper place for every thing.

Drawing must be divided into:

1. Figure and landscape drawing, (which includes the preparatory stereometric drawing, or drawing of regular bodies.)
2. Ornamental drawing, (or the drawing of those ornaments useful to carvers, joiners, potters, porcelain manufacturers, brass and iron founders, gold and silver smiths, jewellers, architects, &c.)
3. Drawing of maps or *chartography*, (at least I believe we might use this word, formed after the French *cartographie*, which comprises the drawing of geographical and topographical maps, charts, and all the drawing of mensuration.)
4. Machine drawing.
5. Architectural drawing, (which comprises the drawing of the plan, elevation, section and perspective.)

The ornamental drawing is, as you will perceive, of great importance to all artists and mechanics. The Prussian government caused, some time ago, a work to be published, consisting of plates, representing ornaments of all kinds, such as used in pottery, brass ornaments, &c., of the best periods of taste; and the effect it has had in Prussia on the mechanical arts, which occupy themselves in any way with ornaments—the printing of

calicoes, shawls, &c., the weaving of silks, the dying &c., not excepted, has been very great.*

There is in Berlin, besides, a drawing school, chiefly calculated for young mechanics.

### Mathematics.

Mathematics are, in the cause of education, inferior to no branch of human knowledge whatever, whether we view them in regard to mental cultivation, their strictly scientific character, or their manifold applications in other sciences, and the great variety of occupations in practical life. They form the basis of all natural sciences, and are the scientific guide in numerous pursuits, not the least important to society.

A time has existed when it was believed that truths could be sustained only as far as mathematical reasoning could be applied to them; and there was a period, in the natural progress of philosophy, (that of Wolf,) when a strict application of mathematical reasoning, to the arguments of this science, was attempted. This was a misconception; it was applying the same means to materials totally different; yet mathematics are not therefore the less important, and if we only ascertain their precise sphere, we shall expose ourselves to no danger.

It is peculiar to this science that as far as its province extends, every thing within its limits is undeniably certain. In its language, every word expresses neither more nor less than it is intended to express; it can convey no indistinct idea, and,

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* The work above alluded to, with several others, such as containing copies for masons, carpenters, &c., were published, chiefly through the endeavors of Mr. Beuth, an officer of high rank, whose opinion is, that it is unjust to protect the producer at the expense of the consumer; that government has a right to watch over industry, only so far as common danger may ensue from general unskillfulness; and that it is the duty of government to give an example only, and contribute to the formation of taste, for which purpose these valuable works were issued.

must be understood, from pole to pole, precisely in the same meaning. In its domain there is no confusion of tongues; no different perception influenced by different temperaments climes, countries and education; no mathematical expression can produce a different association of ideas in different individuals. In this unqualified distinctness lies the whole greatness and power, and at the same time the whole narrowness, of mathematics; here we find the cause of their beneficial influence upon our mind, and here also the cause why the greatest mathematician may be, in most other respects, even below a very moderate standard of mental cultivation or capacity. They develope one faculty of the mind, with an intenseness unknown to other sciences, but do not necessarily bring the student into contact with many other branches of knowledge or human activity, and this concentration of the whole mind, on one point, unconnected with any thing else, this exclusive occupation with one abstract subject, uninfluenced by the manifold desires and appetites of man, may have caused what has been stated by some that there have been more, distinguished votaries of this science, who ended by laboring under a mental aberration, than among the followers of any other branch of knowledge. Mathematics is a stern science, and for this very reason of the greatest use, if properly conducted, in training the mind. Herschel speaks of "their solidity and adamantine texture," and indeed, there is a rectitude and firmness, I wish I could say a scientific probity in them, which have a most beneficial influence upon the youthful mind, not only by giving to it a disposition for clear argumentation, though their own proper method of reasoning may not be strictly applicable to our reasoning on other subjects, but also by imparting to it a love, and what is more, a habit of truth.* It has always

* The following is a passage of Herschel's Preliminary Discourse on the Study of Natural Philosophy; "Now the study of the abstract sciences, such as arithmetic, geometry, algebra, &c. while they afferd scope for the exercise of reasoning about

appeared to me that mathematicians distinguish themselves by a coolness of judgment, which enables them in many cases to discern with greater ease truth from semblance, a willingness to adopt it as soon as acknowledged, and a mildness of temper. I may be mistaken, but certain it is, that the cases which have fallen under my observation lead me to the above opinion, whilst this result seems to stand in a natural connexion with the character of the whole science. There is no controversy proper in mathematics. This alone would almost account for many of the mentioned facts.

But mathematics have yet another great moral effect in education. They are the first science by which we can make it apparent to the youthful mind that there is order, and an order tangible by scientific inquiry, in all the seeming disorder which surrounds us. Geometry affords in this respect an incalculable advantage in education; a scholar finds that a space, however irregular in its outlines, may be correctly represented on paper on a small scale, and this humble fact becomes the beginning of an elevated view of the human mind.

Mathematics give the youthful student, a noble feeling of his own power, when they teach him to find in his closet, laws which are, and necessarily must be followed throughout creation, and which the maker of the universe himself laid down, when he called it into existence. Who can forget the expanding effect when he first studied the conic sections, and learned that worlds move after the beautiful laws, which this part of mathematics teaches us to find?

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objects that are, or, at least may be conceived to be, external to us, yet being free from these sources of error and mistake, accustom us to the strict use of language as an instrument of reason, and by familiarising us in our progress towards truth, to walk uprightly and straight-forward on firm ground, give us that proper and dignified carriage, which could never be acquired by having always to pick our steps among obstructions and loose fragments, or to steady them in the reeling tempest of conflicting meanings."

From these considerations therefore, and the whole character which, I believe, must be given to our college, and according to which the natural sciences and the preparation for a number of occupations, which make the knowledge of mathematics indispensable, it will appear that mathematics must become one of the main and fundamental sciences of the whole course of education given in the institution which occupies our attention. Here also the wish of Mr. Girard agrees fully with our views; he prescribes that mathematics shall be taught in the college, and when he uses the word "practical mathematics," it is evident that he intended to indicate more distinctly, that they should not be excluded, whilst, had he used the expression *mathematics* only, it might have been subject to a misunderstanding, as if applied mathematics need not be taught. This expression includes, necessarily, pure mathematics, but *mathematics* only would not have necessarily included applied, or mixed mathematics. I need not mention, that the study of this science cannot be carried too far in the college, and a proper regard to the respective age of the scholars, and the importance of other sciences, form the only considerations which must regulate us in this respect.

I cannot dismiss this subject without once more urging the great necessity of paying, from the beginning, the greatest attention, to what Mr. Girard calls teaching facts and things (and of course ideas) rather than words. But too often it is neglected in the instruction in arithmetic and mathematics, and the pupils accustom themselves to consider the whole science as something not much better than a play with certain signs according to certain conventional rules, a discrepancy which is pregnant with the worst consequences, the more apparent, the more the scholar advances in mathematics, or the more he is called upon to apply them.

I have recommended instruction in book-keeping, not in order to prepare those scholars, who shall engage in commerce,

the better for their future occupation, but as something of the greatest use, to every one without exception, whatever his future destiny may be. There are few things, in my opinion, more important for practical life, and domestic happiness of the industrial classes. If we can bring all men to keep their regular accounts, we shall have made a great step towards making them industrious, careful and sober, and toward that aim, so ardently wished for by the numerous temperance societies in our country.*

A useful way of giving much valuable information, even to very young scholars, on the relations and properties of the great variety of regular bodies, both in themselves and to each other, and to impress this information with great clearness upon the youthful mind, is the making of those bodies of paste-board and wood, as they are found in German collections of models of crystals for the study of oryctognosy. It affords great pleasure to children or youths to make these bodies, and aids most materially in forming clear and distinct notions of the manifold relations of space. There are works on geometry which make much use of this method, such as Harnisch's Geometry, Breslaw, 1822, and together with Pestalozzi's *Anschauungslehre*, as this educator called a peculiar method of leading children by their own mental exertion to a knowledge and conception of numerical relations and those of magnitudes in space, and with which children may be advantageously occupied at a very early age, deserve full attention of any teacher in geometry.

You will find, Gentlemen, that I recommend the erection of an astronomical observatory. I am convinced that in erecting

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* Since Mr. Girard has ordered his commercial books to be placed in one of the college buildings, they may serve to the scholars as models in the above respect, in which they will find the smallest sum, paid for menial labor, entered with the same care, and occupying the same room, with millions subscribed for some company or bank.

it we act precisely in the spirit of the testator, who points out astronomy and navigation, as branches to be taught in the college for which he left so ample means, and who at the latest hour of his life, found a pleasure in calling himself "merchant and mariner." If it is his wish that we should erect an observatory, or if, at all events, we can distinctly say that we act in the spirit of his whole testament by doing so, it is besides called for by numerous other considerations. We are the second navigating nation, and a maritime power; our country extends over vaster regions than most others, we are the most civilised and advanced nation of the western hemisphere, and no observatory exists as yet among us. There is not an individual, I believe, who loves knowledge, who has the slightest idea of the powerful, enlivening and all-penetrating effect of natural sciences, and, I do not hesitate to add, there is not an individual among us that loves the honor of his country, who does not wish to see it provided with an observatory. If we are one of the four great leading nations,* we must sustain our rank in a manner worthy of so proud a station, and it is my opinion, that even this circumstance calls for the erection of an observatory. We have enjoyed the peculiar advantage that the best fruits of many literary and scientific institutions in Europe, supported at great expense, and by great exertion, have ripened for us, as well as for those countries where they were originally raised. This is the case with all civilised countries, but with us perhaps more so, than with others, since all Europe lies before us at an equal distance, as it were; and distance of space as well as time, produces impartiality. But ought we not to strive to contribute independently our share in all branches of knowledge? I never yet met with an American that was not of opinion that we ought to have an observatory, and since so great means have been left to us—

* The English, French, German and American.

means which we cannot expect to be placed at our disposal a second time, the only question left can be, is a college for orphans the proper place for an astronomical observatory? I believe that the Girard College is a most proper place.

I have already shown that it was the testator's intention to give a superior education to those who merit it, and mentioned also, that he singled out astronomy as one of the sciences he wants us to teach in the college. But though a superficial view of astronomy may be given without an observatory, it is impossible to give, in this manner, a sound instruction in hisnoble science. I fear that many persons far overrate the expenses of an observatory. I have been informed by a gentleman, whom I consider the most competent in this country to give an opinion on this subject, that an observatory might be built and furnished with the necessary apparatus and instruments, for 20,000 dollars, and that the regulation of chronometers and astronomical publications would furnish a great part of the expenses necessary for its support. We ought to consider, besides, that the college has to be furnished with many philosophical instruments; several advantageous arrangements therefore might be made for the appropriation and conservation both. To repeat, I believe we ought not to allow this opportunity to escape without providing our country, the cause of science and knowledge in general, and of education in particular, with an observatory.

## History.

In order to act wisely it is necessary to know two things: the means which are at our disposal, and the precise station we occupy among our fellow-men. To know the latter, we must have a just knowledge of the community and society in which we move, and in, through, and upon which, we have to act: to know this we must know the elements and materials out of which that society is made up; its organisation and institutions;

their true character and value; their origin and occupation—we must know history. This is true every where, but no where more so than in a community like ours, where men act upon men by moral power only, never by physical power, and if we look around us we shall find indeed, that those of our fellow-citizens have had always the greatest and most lasting influence among us, who, all other things being equal, knew best the history of our country.

But as with us every one is called upon to act politically, and as with us a greater sphere of political activity is assigned to every individual, than in any other country, or ever was assigned to man at any previous period, so also with us a proportionate knowledge of history becomes more necessary to every one. Neither armies nor finances are with us the greatest levers of politics; all rests with us upon political institutions, and these institutions are in the hands of the people; they may raise and demolish them at their pleasure. How important then becomes, in our country, a thorough and sound knowledge of their growth, of the intention of their founders, and the circumstances which called them into existence! How often have men to deplore in their law-givers a want of sufficient knowledge as to the true history of institutions, which they demolish or cripple, or which they permit to continue!

If nature forms a worthy subject of study and inquiry, man, his gradual moral development, forms a still worthier one; history is the anatomy and physiology of human society. If it is one of the primary objects of all education to enable the individual to be educated, to understand himself, to know his relative position to men and things around him, and to be aware of the necessary connection between his time, and those passed by, to teach him what, and how much he owes to others, and that mankind forms in spite of all national or religious animosity or disdain, but one great family, which its creator leads by many progressive steps to his own great ends; to make the scholar attentive to every thing which falls under his observa-

tion, and to impart to him a disposition to find the intrinsic connection of every single fact and event, whether apparently trifling or important, with all the rest; to leave no subject of our experience isolated and unconnected, and to discover the causes and consequences of every thing; to teach him the great lesson of man's experience, and the art of understanding them;* to teach him through what protracted struggles, and by how toilsome labors, man had to gain every single truth, to conquer every advantage—in short, to teach him the history of civilisation—if it is a primary object of education to eradicate egotism and destroy selfishness—the root of most faults, vices and crimes, by showing to the individual that all he is, he is in connection only with mankind, the living and the past generations; to expand his views in every respect; to imbue his mind with modesty by showing him that it is not the narrow circle which next surrounds him, where civilization dwells alone, or his time from which it dates; to instruct him in the skill—and not an easy one it is—to divest objects and events nearest to us, of their apparent magnitude, and look upon present things with the eye of the historian, in order to see their real and naked character and intrinsic worth; and if is more important still to find God in man, than in nature—then, I am confident, the great importance of history as a main subject of sound

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* Autenrith in his Spirit of the University of Tubingen, at the time of the Thirty Years war, very justly says: "Only he who pursues his plans with regardless passion, can assert, contrary to all admonition of history, that now every thing is different from any former similar case; and narrow minded mediocrity, which is affected by that which is present only, believes his word thus apodictically pronounced." Often the historian overleaps centuries and thousands of years, and finds occurences, though separated by that space of time, precisely similar; often he is not able to join in the general homage paid to an event or action, because he knows it is not the first time that this phenomenon appears on the historical horizon, and it will not, and cannot produce the expected effects, whilst he often observes the great progress of a society in facts which appear to others trifling or are sometimes not observed at all.

education will be readily admitted.* The study of history by carrying us into past times and to other nations, has a similar effect upon the individual with that of travelling, it makes them more liberal in every respect. "It treats of man in all his social relations, political, commercial, religious, moral and literary, as far as they are the result of general influences extending to large masses of men, and embracing both the past and the present, including therefore every thing which acts upon men, considered as members of society; its object is to represent the relation in which man exists, and the influences which he is subject to with truth and clearness."†

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* June, 1832, M. Guizot, Minister of Public Instruction, addressed a Circular Letter to the Rectors of the Acadamies, whereby, after noticing the improvements introduced within the last two years into the Institutions for Public Instruction, and stating, that as the spirit of the Constitution required a more enlarged freedom in the system of education, as well as in other branches of the State, the more important it became that the Schools of the State should be made to answer the wants of the times and the demands of the districts, the Minister, preparatory to his laying any further proposals before the Legislature, calls upon the Rectors to send him a detailed Report of the state of the Normal Schools within their respective districts, with suggestions as to such extensions and improvements as they may think desirable. The Minister then states that he has it in contemplation to found establishments of an intermediate class between those of the Colleges and those of Primary Instruction, calculated for that considerable portion of the population which are not destined for either of the learned professions, and who, consequently, have no desire to pass into the Royal or Communal Colleges to acquire the classics, but need a species of instruction more extended and more various in history, geography, the modern languages, and national literature. To this end, M. Guizot adds, that as not a single Commune should be without a Primary School, nor any department without a National School, so no town of upwards of 7,000 inhabitants should be without the proposed secondary school for the purpose of carrying on education from the point at which it is left by the Primary schools, to that at which it commences in the colleges. He therefore desires the Rectors to return him not only a report upon what they may consider useful and desirable to meet this great object, but as to whatever they may consider calculated to improve and extend the present system of education.

† It is this definition of history, which I have given in the Encyclopædia Americana, and I may be permitted to add a few more words succeeding the

I have urged on various occasions the necessity of proceeding in the instruction of children, from the special or concrete, to the general or abstract, which is indeed the course which mankind pursues in general, and every individual in the acquirement of knowledge in a new branch. I would begin in my instruction in history, with historical accounts of the community which next surrounds us; and thus gradually widening my circles, elevate myself to general history. Again—I hold it to be very useful to intersperse the instruction of youth in history, with biographies of individuals who distinguished themselves by virtues, benefits which they bestowed upon us, defects or injuries done to society, adapting this particular branch, of course, always to the mental and moral capacities of the various ages of the scholars.

If I have spoken above of the peculiar effect, which the arduous pursuit of mathematics may have upon the mind, by concentrating its whole activity upon one certain point, I find no better means to counteract this effect than history. This science leads us to consider man, under the greatest variety of

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above ones in that article, in order to show more fully my views on my favorite science. "In investigating these relations, and dispersing the clouds which often envelope truth, history is a science; in exhibiting its treasures of truth, an art. Individuals, events, actions, discoveries, measures are historical as far as they have a bearing upon the many, in their relations to each other; or as far as they disclose a truth, important with respect to the relations above mentioned. In other words, man in society is the subject of history; and as the term *society* may be used in a more or less extensive sense, we have universal histories, which ought to comprise the history of all mankind in its progressive or changing state, if they answered fully to their name; and histories of single countries, tribes, cities, societies, institutions, and even of families. But we cannot speak of the history of an individual unless he is the representative of many, or was so situated that his steps and actions had a decided bearing upon many. The history of Napoleon, for instance, would be very different from his biography. It is evident then that the difference between a history and a chronicle, arises by no means from the importance of their subjects." &c.

aspects, and causes us necessarily to consider every thing that ever had a bearing upon society.

It is not only the history, or rather enumeration, of great political events which I desire to be taught in the college, it is the history of civilisation with respect to politics, religion, sciences, fine arts, discoveries and inventions; the progress of society, commerce and industry; of laws and manners—the history not only of turmoil but also of comfort, that I am anxious to see taught in the college. It is impossible to instruct soundly in politics without instruction in history.

Connected with my view, that the teacher ought to awaken as much as possible in his pupil, a disposition of sharp-sighted observation and clear perception, is my opinion that the professor of history ought to explain to the scholars of the higher classes, at a fixed hour in the week, all the occurrences of the day, and whatever other subjects of interest may be presented by the newspapers. There is a very great mass of knowledge which can thus be diffused, and as I have stated already, it prevents that dulness, which allows the broad current of events to pass by, unnoticed and unheeded. I shall always remember with gratitude the lectures of one of the professors in the University of Halle, which he called *newspaper-lectures.*

In a similar view, I have recommended that the scholars of the higher classes should be held to keep their journals. If we only guard against a morbid sentimental feeling which is pleased by occupying itself continually with its own favored self, and often leads to the invention, not discovery, of sentiments—a discrepancy against which there would be no great danger in our college—we shall find few things better calculated to awaken attention. I believe, besides, that the habit of keeping a journal is one of the best things which the college can give to the scholar to take with him into active life. There is no event ever so lively impressed on our mind at the time it occurs, which after the lapse of a few years does not already

begin to become obliterated. If we add to this the numerous dates, names, and occurrences of minor importance, which, nevertheless, may become at some future period very important, and for the remembrance of some of which almost every day calls upon us, and the record of our life and experience, stored up in a journal, which not only may be, but ought to be very brief, if it shall fully answer its purpose, we shall acknowledge it to be very important. I speak here from the experience of many years, and often I have heard persons of various classes and occupations, regretting that they had omitted to keep this useful record. There are many abuses into which this habit may degenerate, I allow, but they must be guarded against.

It might appear as if a scholar of the college would hardly find any subject of sufficient interest to enter in his journal, but this is a mistake: the books perused during private study, a brief general notice of them, the progress to a new branch in sciences, occurrences within the college, which, though to others unimportant, are not so to its inmates, and many other subjects, afford numerous facts for a journal of a scholar, which need not to be kept regularly every day, but merely when any thing interesting happens, however this may militate against the etymology of the word.

## Natural Sciences.

I have nothing to add to what has been stated already upon these important sciences, which the character of the college will place in a very prominent situation. Had I the wish to say more on this head, I should feel tempted to give a simple extract from Herschel's Treatise mentioned already several times.

The fundamental sciences—the main and leading branches of scientific education in the college, then, ought to be—1. Mathematics, (they strengthen and clear the mind, and teach it to

elevate itself to the abstract).—2. History, (it acquaints the student with his own species, his own society, and constitutes, under a certain point of view, practical ethics.—3. Natural sciences, (they acquaint us with the laws of nature and teach us to make ourselves her master through them.)

### Natural History, Mineralogy, &c.

That those sciences which acquaint us with the three kingdoms of nature, are important subjects of instruction in a polytechnic college, is evident, on a general ground, as well as because we derive from these kingdoms all the materials, the changing, moulding and carrying of which occupies a vast majority of all civilised nations; thus are technological botany, and mineralogy, very important. But several points must be well considered in assigning to them the proper place in our college.

The study of natural history, including all the kingdoms, if carried to any degree of completeness, requires a time, which in a college, would materially interfere with the study of other branches. Zoology alone, covers so vast a field, and embraces such a variety of branches, that we are constrained to abandon the idea of teaching it fully and thoroughly. The study of this interesting science requires, besides, numerous assistant branches, such as anatomy, physiology, &c., without which we cannot attempt teaching it thoroughly.

Another circumstance requires a discreet direction of its study. The sexual relations are throughout the animal kingdom of a prominent importance, and though no individual can be more decidedly hostile to a morbid refinement of feeling than myself, can be more convinced that it is not the offspring of genuine delicacy, but much the effect of a want of it, that is leads not to salutary effects in education, but to deplorable falsehood; nay, though I believe with several conscientious and thorough educators, that it is even necessary to acquaint the

pupil at a proper time, and in a judicious way, exciting a religious reverence of the author of all principles of nature, with the most material facts of this relation so important throughout creation, in order to take from it the dangerous and attractive veil of mystery; yet it will be easily perceived, that zoology, scientifically treated, has on this account its great inconvenience in education. Mineralogy is, as to this point, more preferable, especially with the youngest classes. But I have no doubt that much interesting and useful knowledge, relating to the animal kingdom, may be imparted to the pupils, if we follow the path, pursued at present by many popular English naturalists, describing the habits and manners of animals, without entering into all the strictly scientific parts of this branch. It appears to me that this amiable trait is highly honorable to the English, and quite peculiar to them, compared with their continental brethren. Our Wilsons, Audibons, &c. have pursued the same path, though in a more elevated sphere, and I have no doubt but that the study of zoology of this kind, can be made the means of cultivating the heart and its religious feelings, besides the vehicle which it forms for much information. That branch of knowledge, belonging to this class, which I believe can be, and ought to be, taught more scientifically in the college, than its kindred branches, is, as I have indicated already, mineralogy. Mineralogy and geology are sciences required by many considerations.

"There is no branch of science, which presents so many points of contact with other departments of physical research, and serves as a connecting link between so many distant points of philosophical speculation, as mineralogy."* And we may add, that none of the three kingdoms of nature furnishes materials for such a variety of productions to all trades and occupations, as the mineral kingdom. Crystallography, moreover,

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* Herschel.

is, for a variety of reasons, peculiarly fit for the instruction of youths. It gives a clearer idea of the distinct eternal *laws*, and ever varying *formation* in nature, tangible in this case, even by the accurate rules of mathematics, than any other knowledge; its study is very entertaining, and it is easier for a college to procure a mineralogical collection of some degree of completeness, than herbariums or zoological collections, and without mineralogy we cannot give an idea of geology—a science of the highest interest, and not without its great moral effect. As astronomy teaches us humbleness, by the millions of worlds which it exhibits to our contemplation, and the spaces and times, almost incomprehensible to our minds, in which they move, so geology opens to us a great book in which we find, that not only we as individuals, not only our whole existing generation, but the whole human race from its beginning, dates but of yesterday, and is destined to occupy but a short period of our small planet, which has undergone many revolutions, and gone through many periods before man was called into existence, and may undergo many more. Does this consideration not lead to reflection, not quell undue ambition, not render us indulgent to others, when we thus find *exemplified* and *demonstrated* that we are but the creatures of an hour, a breath which vanishes?

Our state being so actively engaged in mining, affords another urgent reason why we ought to pay attention to mineralogy and geology, sciences which will become more important and more practically useful with every increase of our population, extending its activity in all directions in a country highly interesting, and yet, comparatively little cultivated in a geological and mineralogical point of view. That botany, and especially technological botany, is of great importance to a college like ours, I have mentioned already, and needs no farther inquiry.

## Language and Literature.

Some philosophers have regretted the diversity of languages, and considered them as great obstacles in the way of extending civilisation. I am far from agreeing with them; I consider the desire to see one single language established, an idle wish in every respect. The variety of languages was as necessary, as the variety of climes and countries, and equally indispensable for the developement of mankind.

Had there been but one language, some knowledge would have, undoubtedly, diffused itself faster, but its cultivation would also have been limited to a much narrower circle. Civilisation could not have grown to any great degree of perfection without a variety of nations, which, in a certain degree, independent of each other, followed up their prescribed path with equal independence; and as to letters, the cultivation of genius and its great effect upon the masses, instead of admiring new works of the noblest kind in the same species of literature with different nations, we should have but one great epic, one great dramatist, one great lyric poet, &c.; because it must be well understood that the literature of each nation forms one contiguous whole, progressively passing through certain regular stages, which do not recur if once gone by.

In this respect, and in many others, which it would give me great pleasure to develope here, as they form certainly one of the most important subjects that man can treat of, but for which this essay is not the proper place, it was important and wisely ordained, that there should exist in Europe, within so small a space, so great a variety of languages, which in the middle ages branched out into still more dialects, all having their kind of literature, debarring indeed a rapid diffusion of knowledge from one part of Europe to another, but also offering an opportunity to each plant and flower, to unfold itself independent of foreign influences, whilst there exist upon our vast

continent, to which quite a different task was assigned from that of Europe in the middle ages, but three great leading languages, one of which besides is the common idiom of a sister nation in Europe,* and the two others of which are nearly related, thus offering a facility of communication, which was not equalled by the great diffusion of Latin in Europe in the middle ages, nor is equalled by the diffusion of the Arabic language in Asia. Every thing in history has its proper period.

I have spoken above of the exactness and the infallibility of mathematical language; all other language is but approximation; hence one word signifies often the same in one language, which the corresponding word means in another language, but in addition, also a number of other things, which the latter does not signify in its respective idiom, the grouping and affiliation of words, and, which is the same, of ideas, is different in different idioms, and thus arises a different *division* of *ideas* or play of affinities with different nations (which also manifests itself in the different grammar and organisation of languages; take for instance, the construction of one of our Indian languages and English). If this were not the case, no task would be easier than writing a dictionary.

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* This novel and unique phenomenon of two great nations speaking the same idiom, produces many advantages, and not a few disadvantages, highly interesting to the observer of nations and societies, and which is generally, not sufficiently acknowledged in the attempt to explain certain facts. The mutual influence of the English and Americans, from the most important matters down to trifles, is immense. Two distinct nations, take an interest in each other, which many neighbouring free cities in former times did not take.

I call the phenomenon novel, because Norway and Denmark are too unimportant; besides they belonged until late to the same crown; I call it unique, because France and Belgium are too disproportionate to offer a similar one, and Germany though divided into several states forms but one nation, politically acknowledged so; the Italians form likewise one nation; and the tendency of both, the most ardent wishes of their best patriots, is toward union, not partition.

But from this circumstance arises the great advantage of studying several languages. We learn a different logic, a different way of seeing and feeling, and it is this undoubtedly which was meant by the Emperor Charles V., when he said, that to learn a new language was to acquire a new soul. An article in the Edinburgh Review, ascribed to Brougham, justly says, "He who is acquainted only with the writers of his native tongue is in perpetual danger of confounding what is accidental, with what is essential, and of supposing that tastes and habits of thought, which belong only to his own age and country, are inseparable from the nature of man.

"Initiated into foreign literature, he finds that principles of politics and morals, directly contrary to those which he has hitherto supposed to be unquestionable, because he never heard them questioned, have been held by large and enlightened communities; that feelings which are so universal among his contemporaries that he had supposed them instinctive, have been unknown to whole generations; that images, which have never failed to excite the ridicule of those among whom he has lived, have been thought sublime by millions. He thus looses that Chinese cast of mind, that stupid contempt for every thing beyond the wall of his celestial empire, which was the effect of his former ignorance. New associations take place among his ideas. He doubts, where he formerly dogmatized. He tolerates where he formerly execrated. He ceases to confound that which is universal and eternal in human passions and opinions with that which is local and temporary. This is one of the most useful effects which result from studying the literature of other countries."

We have therefore great reason to congratulate ourselves that the testator prescribed French and Spanish to be taught, besides the vernacular tongue. I have added, as you will find, the study of the German language, for the higher classes, as coming undoubtedly under the head of "such other

learning and science as the capacities of the several scholars may merit or warrant."

The German language is the key to a literature which contains, as is well known, great treasures of knowledge in every branch, and its study has besides the important advantage of materially assisting the scholar to penetrate deeper into the character and essence of the English idiom, and to give him a more extensive view of *grammar*, than he can receive from the study of modern languages of Latin stock, or English. The supposed difficulty of learning German, is generally much overrated. I allow that it would be difficult to learn to converse in German without allotting an undue part of the time of the scholars for its study, but this is not the object. I have repeatedly enabled persons, who had no knowledge whatever of the German language, to read and understand easy works in that idiom within three months after they had began to study it.

From the general character which the college has to assume, it will appear that the classical languages cannot become its fundamental and leading sciences. I believe there are but few more sincere admirers of the classical languages than myself, particularly of the Greek, which I consider for its thousand noble and unrivalled qualities, the most beautiful production of the human mind on record; yet I say that they cannot be made the fundamental studies of the college, nor do I regret this circumstance so much as many others, who feel an equal degree of admiration for the favored tongues of antiquity. Times change; and when nearly the whole amount of human knowledge was stored up in the Greek or Latin idioms, when the revival of the study of them had just re-kindled the scientific ardour of the Europeans; when the new civilisation, at least in respect to many branches, went forth from the remains of ancient civilisation which yet had been saved in Italy, from the great political deluge, alloyed with the new elements brought on by the Teutonic invasions, and when above all, the

modern languages had not yet acquired any independent literatures, but were only "vulgar tongues" in the eyes of all men, and a Dante thought it necessary to excuse himself, that he wrote on so serious subjects, as those of his poem, in the "vulgar dialect;" then Latin and Greek had a very different value for the great number than now, and there is nothing more natural than that they should have been considered the main subjects of instruction; but the modern languages have now acquired their own literatures, the different nations have now arrived at an independent civilisation; religion, science and politics no longer disdain to speak in their modern idioms, and a number of new sciences have sprung up, of vastly superior importance to mankind to the Greek and Latin; so that an institution may well aspire to the dignity of providing a superior education without making Latin and Greek its fundamental sciences.* Besides, there is actually no time to teach Greek and Latin, as it is taught now, in the classical colleges of the best kind, together with all those sciences which must be taught in a polytechnic institution. The Prussian government, so watchful over schools of a higher order, has perceived this circumstance, and has begun to provide accordingly.† If Greek, therefore, is taught in the college, it can only be to a few who distinguish themselves particularly, and from whom it is otherwise found judicious not to withhold this knowledge. But though I consider Greek much superior in its whole texture to Latin, yet you will find that I have advised to make the latter one of the common subjects of

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* In a similar way as Latin and Greek had a political importance in former ages, especially the first, on account of its being the language of the clergy, the learned and the diplomatists, so natural sciences acquire now a political importance as being essential to the most important class—the industrial.

† I have mentioned already that polytechnic schools have been established in all provincial capitals of Prussia, and others are establishing in towns of less importance.

instruction, with all those scholars whose capacity warrants such extension of instruction. Latin is a key to a whole family of European languages, and but a fair degree of its knowledge is requisite to be greatly assisted by it in the study of its derived idioms. If we have to teach French and Spanish, we shall save much time by teaching Latin also, and shall at the same time afford to the scholar the means of learning with great ease Portuguese and Italian. The Latin language, moreover, was for a long time, the general European medium of communication, and it has become so closely interwoven with almost every branch of knowledge, that a fair knowledge of it is very desirable to every individual. To this we must add, that its grammar is very perfect, at least so much more perfect than the grammar of our modern languages, that it cannot be denied that it is a very serviceable means of philologically training the mind. I do by no means agree with many philologists who maintain that there is no better means of logical training in general, than the study of Greek and Latin, but they may certainly be made very serviceable in giving to the mind a philological training, and in the art of expressing ourselves concisely and with precision.

Languages must never be taught without obliging the scholar to write, and at a proper period of the instruction to speak them. I have always found it best to give many lessons in a language at the beginning of its study, in order to overcome quickly its elements. As it is always of great importance to make a language which we are studying *familiar* to us, I should advise not to omit the reading of Latin works, letters, &c., written by modern scholars, such as Muretus, Puffendorf, Bentley, Grævius, Ruhnken, Wyttenbach, &c. They express modern ideas in this language, and thus bring it nearer home to us. Even the reading of parts of modern works in bad Latin, if they are important, such as early histories ought not to be omitted. The celebrated scholar, Cardinal Bembo, indeed was afraid of spoiling his pure and choice Latin by reading mass

and the vulgate; but we would not teach Latin in the college in order to raise scholars—this is not its character. That the scholars ought to be acquainted with the best works of literature, especially that of our language; and that they ought to receive in the college such instruction as will enable them to pursue the same delightful, refining and beneficial study with the greatest advantage after they have left the college—that we cannot dispense with the study of literature, on account of its "right moral influence" is clear and not necessarly farther to be developed here.

### Statistics.

I would propose to teach this science carefully, not only the facts collected by it, but also the scientific way of collecting, and the rules of digesting and using them. Statistics, originally the term for a science, has been used by the Americans and English, chiefly for the facts collected by this science, and, generally, for these facts only if numerically expressed—a confusion of ideas, produced in a great degree, probably, by the circumstance that this word is used in the plural only, as if it indicated merely a collection of many parts, numerically expressed. The German and French words for the same science do not lead to the same mistake. Statistics, (the word and science were invented in Germany), taken in its proper meaning, signifies the faithful statement of the actual *state* of a community, society, &c., as history signifies the statement of its growth and developement. It embraces, therefore, many more subjects, digested in a different way from what we generally find designated by this word. As instances, I might give baron von Malchus' *Statistik*, Stuttgart, 1826, (in German), and Guerry's excellent *Essai sur la Statisque Morale de la France;* Paris, 1833. As an example of the contrary, I would mention de Cordova's Memorias Geograficas, Historicas, Economicas y Estadisticas de la Isla de Puerto-Rico, 2 vols.;

Porto-Rico, 1831—a work which in nearly one thousand pages, gives the details of every hamlet, how many hogs and individuals of the domestic feathered tribe, &c., there are, without any spirited deductions from these immense statistical details. There are physical, moral and political statistics—branches which require yet much cultivation, as the whole science is but in its first beginning. This beginning, however, has already sufficed to convince all active and civilised nations of their great importance, and we ought not, therefore, to establish a new institution without assigning to them their proper place.

### Geodesy.

The French and Germans call thus the whole science of topographical and geographical measurements. Mr. Girard prescribes surveying, and it is clear that he wishes us to teach the whole science of mensuration in the college. Surveyors are much in request in this country, and trigonometrical surveys, in addition to topographical measurements, are indispensable where so many canals and roads of all kinds are building.

### Technology.

That technology in all its branches and various ramifications, ought to be taught in a college chiefly intended for preparing youths for the different arts, is so evident that no farther remark seems necessary.

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You will find, Gentlemen, that I have thrown much responsibility and labor upon the president, and have endeavored to give him proportional authority. Mr. Girard has thought best to leave the whole organisation and future chief direction of

the college in the hands of the corporation. Now, the corporation is a body chosen for political and not for literary purposes, and chosen annually too. It was incumbent to create, opposite to this power, unstable in respect to literary views and talents, a stable one, without which no system of education could possibly become a blessing to those who are to be educated. It is for you to judge whether I have solved this important problem, namely, to unite, in regard to this point the testator's will and the demands of education in general into one salutary whole, not only in regard to the president but to every thing which I have proposed respecting the government of the college. Rectors of German universities are chosen from among the professors for a very short period, generally for one year only; but it must be remembered that a German university is an institution for instruction solely; it is no institution for education, and the rector has not even the direction of the studies; he is only the temporary chief authority for certain matters of business, and the Prussian government has, since the year 1819, appointed for each university a permanent officer called the curator, to watch over its interest in the university. Wherever there is an institution for *education* in Germany, its chief director is appointed for an indefinite time. In fact, education is no education, and worse than that, without a strict and well regulated system, being consistently carried through the whole, which cannot be done if the chief direction does not remain long in the same hands, though it must be kept under proper control.

Sound and systematic education requires time, and as no system of education can be prescribed like a plan of a building, but must depend in a great degree upon the individuality of the teacher, sufficient confidence in him, and time, are necessary, in order to let his pupils enjoy the advantage of a carefully calculated and conscientiously executed plan. I have endeavored to give, as much as an energetic school-government permits, this general direction to the president and chief pro-

fessors, and hold it, for these and other reasons, important that the president of the college should be at the same time one of the professors. In some of our colleges his chief duties are the direction of matters of business; I do not consider this a wise arrangement.

In judging of my proposals respecting the government of the college, I would take the liberty to press upon your mind the consideration that Girard College will have to educate and provide, in *every* respect, for orphans, from six to eighteen years. This circumstance gives it quite a peculiar character, which calls for adequate measures and provisions.

A gentleman, who has had a very long personal experience in American colleges, said to me, that his decided opinion was, that a president of a college ought to be vested with much authority, so that he might be made chiefly responsible for the success of the institution.

The sum to be fixed for the salary of the president, ought to be stipulated, with a full and due consideration of Mr. Girard's prescription that the teachers shall receive adequate compensation; he ought to be liberally remunerated. If you adopt my propositions respecting the president's duties, a gentleman will be required of no common talents for a sphere of activity, which is equally uncommon, and will require his whole attention. He will have to give his *whole* time, his *whole* mind to it. It is chiefly he who must give life and activity to the whole college, and the attempt of saving in respect to the special point of his salary, would prove to be no saving in the end.

If Mr. Girard's remark, that no person shall be employed, "who shall not be of *tried skill*," and that no one shall be chosen except "on account of merit and not through favor or intrigue," applies to any station in the college, it is before all to that of the president. It is not sufficient that those who elect him divest themselves so far of favor, friendship, or attachment of consanguinity, of party or sectarian feeling, as not

to appoint a person for this eminent station, whom they know to be unfit—there is little danger of so glaring a deviation from the plainest path of duty—but they ought scrupulously to avoid being unconsciously influenced by any feeling or interest, except that of the purest and most conscientious wish to act for the true interest of the college alone; they ought to represent clearly to their mind, that in electing a president, a duty devolves upon them, more sacred than which there can exist none in this whole country, that the cause of knowledge, the cause of the fatherless, the cause of our country, and all humanity call upon them to discharge this duty with religious and unbiassed rectitude; that the whole success of the college for all future periods, will much depend upon the first choice, and that they have not only to avoid electing an unfit person, but that they have to appoint positively the best person, whom it is at all in their power to select, and whose services they can possibly procure. There is a religion under all the variety of sects; there is a patriotism under all the variety of parties; there is a love of knowledge and a true science under all the variety of theories; let that religion, that patriotism, and that genuine love of knowledge which alone has weight before him who searches the heart, have its full weight also with those upon whom falls the great responsibility of electing a president; and let them ask themselves whether they have judged of the question unbiassed by any favor, and in remembering him who is the father of the fatherless, and a judge in whose presence all earthly tribunals, even that of public opinion, sinks to nought.

For these reasons I hold the provision, that no individual should be appointed president, who has not signally distinguished himself in the cause of science and letters, of great importance. Let us make his chair a place of scientific honor, which the most eminent men in science will be proud to fill.

I propose for the same reason a provision in the constitution

that no person ought to be appointed a faculty professor, who has not distinguished himself in the cause of letters or sciences.

This alone can insure that scientific independence, without which, according to the proposed division of the whole college into faculties, their respective heads cannot properly discharge their momentous duty of maintaining a systematic and truly salutary course from the first beginning of the scholar to his final discharge from the college, in all the branches which are placed under their peculiar direction. Nothing can be less conducive to the true ends of science and knowledge, than the appointment of persons who *will* qualify themselves for the stations or chairs for which they have been selected, nor can there be any opinion more erroneous, than that a limited instruction in any branch requires in the teacher but a knowledge equally limited. I have had occasion already to observe, that our knowledge must always be in advance of our applying it—an observation which is no where more true than respecting teachers. The greatest men of France, a La Place, a La Grange, Biot, Arago, Gay-Lussac, Fourcroy, &c. have not held it under their dignity to teach in the *Ecole Polytechnique*, even after they had been called to higher functions, and other persons had been appointed in their chairs, nor has it ever been doubted but that they have rendered the most essential services to this noble institution.

I have heard indeed that captains, accustomed to command large vessels, are the worst helmsmen in small boats; but if we had to appoint a person for the direction of a number of vessels of different sizes, should we not select a man thoroughly acquainted with the whole science and art of navigation? Do we ever hesitate to place the manning and direction of the smallest boat under the command of the highest officer on board a frigate?

I certainly would not advise to appoint a Bowditch for the direction of the humble school which has been founded, in consequence of Mr. Girard's will, in Passyunk township, but all

I wish to say is, that the knowledge of a teacher must be far in advance of his actual instruction; and for this reason, as well as because a faculty professor will have to direct the whole study of his respective sciences, he must be a gentleman of as sound and profound a knowledge as the Board of Directors possibly can obtain, and they *have* the means to command the best talents. If instruction meant nothing but a superintendence over certain rules, being committed to memory, then, indeed, any person of very moderate talents might instruct in any branch. But if the teacher's duty is to kindle in his pupil a noble love of knowledge, if he ought to impart to them the spirit of his science, and to calculate every single and progressive step of his instruction for its great and final object, then he must be master of his science.

As Mr. Girard says that the teachers shall receive "adequate compensation," it becomes necessary to settle what is the precise meaning of this expression. Adequate compensation can mean two different things. If a task of a common or definite nature is to be performed, adequate compensation means that, for which I can command as many persons to perform the task, as I choose to employ; if the task, however, is of a rare kind, requiring commensurate qualities, and not of a definite nature, adequate compensation means that by which I can command the talents of a person, who in all probability will perform the task best, and by which I enable the person employed to do it in the best way; in short, in the latter case I must use all the means at my disposal to obtain the best service.

A definite performance of the labor is then no longer the measure by which I can judge of the adequateness of means to get it done. A professor of mathematics is to be appointed, he shall teach this science to a certain stage; all this may be easily settled, and yet the whole remains indefinite. How thoroughly he shall teach mathematics, in what degree he shall inspire his pupils with a love of this science; how much he shall nterest himself to impart its principles to the scholars, that they

may continue to study it for themselves when no longer under his guidance; how much pains he shall take to let the pupils find themselves the truth; in what degree he shall direct his attention to the constant improvement of his instructions; all this cannot be settled, and all we can do is to get the best man for the means at our disposal.

There is no direct medium which enables us to express literary or scientific labor in money. If a bookseller pays a certain price for a munuscript, he does not pay for the literary labor or talent which was requisite for its production, but for what the book will be worth to him; he gives a much higher price for a good novel than for Laplace's Mécanique Céleste. We cannot, therefore, ascertain the salary of teachers by a direct estimate of their labors; the only rules to judge of the adequateness of compensation is, 'how can we command the best talents, and at the same time enable them to give their whole talent to the performance of their task?' It is a most destructive rule in all scientific labors, to get the *most* for your money, or, to get your work done in the cheapest way, because you cannot define the task distinctly, and between the teaching of the *same* science by two teachers may be an immense difference, the one worth the best remuneration, the other none, and less than that. The only rule which in the end turns out to be the cheapest, is to get the *best* labor for your money. The salaries of professors in German universities, founded in early periods, are very low, and the Prussian government, when it established the University of Berlin, might have commanded professors for very scanty compensations, but it chose to give better salaries, and Berlin has become the first university.

You will find that I have considered it necessary to explain the word orphan, by meaning a fatherless child. I believe, for my part, that we are in conscience bound to give it this meaning; nor do I believe that we narrow thereby the circle to which the benefit, bestowed by Mr. Girard upon the poor, may extend. It seems to me certain, that however great the num-

ber of orphans to be educated in Girard College may be, it will be impossible to receive all applicants, and if we admit children who have lost their mother only, admission must be refused to others who have lost their father. In the abstract, therefore, it does not seem to me a question of great importance, and as Mr. Girard has chosen to use the word orphan only, without any farther application, it appears to me, as I have stated already, that we are bound to apply the word to fatherless children only.

When Mr. Girard uses the word orphan, we are sure he did not look for the etymology of the word, but used it in that sense which presented itself as the readiest in his mind. Which sense was this? Mr. Girard, a native Frenchman, spoke much French, and better than English, throughout his whole life. It is possible therefore, that, though his will is drawn up in English, the word orphan presented itself to his mind with that meaning which *orphelin* has in French, because if two languages are equally ready to a mind, as means of thought and utterance, which is much more than the capacity of speaking two languages, phenomena take place in the human mind, which can be known by personal experience only. Sometimes we think in one language, sometimes in another; sometimes we use one language, and yet transplant to certain words, the meaning which belongs to their fellow words in the other language; sometimes indeed we use one language, believing all the time we use the other. We must then take the work orphan, in its English or French sense, if we wish to ascertain its precise meaning, as to the will in question, and in both languages the word orphan in common language means a fatherless child, as the following note, and the succeeding lines will show; it never means any thing different if used to designate asylums, or any institutions for them. Whatever may be the poet's use of the word *orphan*, as soon as it assumes in any degree a legal or official sense, it signifies, and very naturally so, fatherless children only.

But for those who believe that we can learn any thing from the etymology, it must be mentioned that the Greek word ὀρφανος* was nothing less than a proper definite law term,

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* The Greek ὀρφᾰνος meant originally always, parentless or fatherless, ὀρφαναί parentless daughters, Od. 20, 68; in the same way ὀρφανὰ τεκνα, Hes. Op. 332. From the time of Pindar, however, it is used in the extended meaning of being bereft, wanting, &c. with the gen. ἑταίρων Isthm. 7, 16. ὀρφανοὶ ὕβριος destitute of insolence, Isthm. 4, 14, hence also ὀρφανοὶ γενεᾶς, (parents) without issue, childless. Ol. 9. 92. And in the same meaning, without further addition, Eur. Hec. 150. The later abbreviated form is ὀρφός (from which the Latin *orbus*) and ὄρφνη darkness, and ὀρφνός, ή, dark, deprived of light.—SCHNEIDER.

The Dictionary of the Crusca, the earliest of modern dictionaries on its plan, has, *Orfano: fanciullo privo di padre, e madre.* This is not clear, yet the comma, repeated in all editions, and the consideration that a child bereft of the father only, is certainly an orphan in Italy, sufficiently prove that the lexicographers meant, that the loss of the father or mother, or both, should constitute orphanage. Besides, the authors of the Crusca followed, in words of this kind, too much the Latin, not to have taken *orfano* nearly in as extensive a view as *orbo.* The French Dictionary of the Academy says, *Orphelin: enfant mineur qui a perdu son père et sa mère, ou l'un des deux,* but it adds, *il est a remarquer que, dans l'usage ordinaire, on ne se sert guère du mot d'orphelin en parlant d'un enfant qui n'a perdu que sa mère.* The Spanish and Portuguese dictionaries of the respective academies, were considerably influenced by the French. Thus we find in the first, *Huerfano: persona de menor edad á quien han faltado su padre y madre ó alguno de los dos*—a literal translation of the French. Of *Orfandad,* however, the same work gives this definition: *Falta de los padres; y tambien se toma por la falta del padre solo.* The Portuguese *orfaõ* signifies, in general and law language, always, a fatherless or parentless child. *Orfanologia,* is a work on laws of orphans, *i. e.* fatherless children, because there are no special laws respecting children bereft of their mothers only. In Swedish, there is no single word to express a fatherless, motherless or parentless child; the Swedes say, *fader eller moder lóst barn* (fatherless or motherless child); but an orphan asylum is *barnhus for faderlösa barn* (a children's house for fatherless children.) Seunius's Swedish Dictionary. In Danish, the word for orphan is Faderlös (fatherless). *Moderlös* is translated by motherless, but *Faderlös* by orphan. Wolff's Dan. and Engl. Dictionary. To repeat, the Greek and Latin words are entirely indistinct; the Italian and Spanish are for including the loss of both parents or either of them; the French inclines for excluding the loss of the mother; the German, Swedish, Danish and Portuguese do still more so. Yet, however interesting these philological inquiries may be, they are of little use to our present purpose.

as little as the Latin *orbus*, which has the extensive meaning, of being bereft of parents, children, and even of husband or wife; and in a similar way may be used the German *verwaist*, meaning, in its widest application, standing alone in the world without near relations; but this is an emphatic expression, just as the English word orphaned has been used by poets.* And here seems to me to originate the mistake, with those who maintain that the word *orphan*, in the will of Mr. Girard, ought to be extended also to children who have lost their mother only. Dictionaries, it is true, give this extended explanation of the word orphan, but they have to give all the meanings, whether precise, emphatic, or metaphorical, in which the word has ever been used by proper authorities. Almost all of them add, however, that generally this word means a parentless or a fatherless child. It has been urged that the Germans use the expression fatherless orphan, which indicates that orphan alone, may mean also a motherless child. I find in the whole Prussian code the expression fatherless orphan but once, and there it is evidently used merely to avoid all possible mistake; in common language, it would undoubtedly be considered a pleonasm. In the Austrian and French codes, and in the *corpus juris civilis*, I find nothing which could support this extended meaning of the word orphan; and a learned judge of our city has shown, as you are well aware, that in those few cases in which English courts have been called upon to construe the word orphan, it has been taken in the sense of a fatherless child. In our country, as I have been informed by some of the first jurists,† it is believed that no such official decisions exist, but that the meaning attached to the

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* Young uses the word *orphaned*, for bereft of parents or friends, and the dictionary of the Spanish Academy adds, after having given the above definition of the word *orfandad: la falta en que alguno se halla de la persona que le puede ayudar ó favorecer.*

† Chancellor Kent and Judge Story.

word orphan by the people at large, is unquestionably that of a fatherless child—a meaning which entirely agrees with our whole social system. I am fully aware of the paramount importance of the mother in the education of a child; this importance even increases the farther we descend in the scale of social relations. I have enlarged upon this point in another work.* But our whole social system would nevertheless be overturned, were we no longer to consider the father the chief of the house, the "lord" of the family. In all civilised countries the law justly takes cognisance of the death of a father; it appoints guardians, it administers the property of the minors, and watches over their interests; but in no country does the law take cognisance of the death of a mother only, except in some special cases when her property has been kept separately. The respective relations of the father and the mother to the child are founded in the necessity of things, and therefore established by him, who assigned different spheres of activity to every being in the universe—relations and conditions against which we never can act with impunity.

I should consider it indeed, a bad example, were we to receive in the college, children whose fathers though poor, are yet able to work. Should we not all feel shocked at such an application of Mr. Girard's legacy? It would remind me of the many convents in Italy, where every day at noon, soup is distributed among all the poor, who will present themselves; and as Franklin expressed it so pertinently, 'build pigeon holes and pigeons will come.' However charitable the intention is, it is a frightful support of idleness and vagrancy. It is different if the father is unable to work. I have proposed therefore, provisions which make the child fatherless in the eye of the college, if the father is crippled or infirm, if he cannot work. I think that plain charity and common sense require this

* On the Penitentiary System in the United States.

provision, which is not unfrequent in the constitutions of other orphan asylums. In fact though the father is not dead, he cannot earn the support of his children, and what the mother earns and spends for them, is diminished by the time required by the care for her husband, and the money she has to spend for his support, so that the children, as long as the infirm father lives, have in fact a greater claim upon charity than after his death.

I have acquainted myself with the constitutions of many orphan asylums in different countries, and I have found but one, the Schindler-Asylum, in Berlin, which admits children who have lost their mother only; this is done, however, but in cases of a peculiar character; and as I have just stated, in certain cases this ought to be done also, according to my opinion, in Girard College. All those provisions, relating to the question, who is to be considered fatherless? may require acts of our legislature, and in fact, that whole part of Mr. Girard's will which provides for the college, cannot go into operation without legislative assistance. Thus, for instance, the testator says, in page 21, "No orphan should be admitted until the guardians or directors of the poor, or a proper guardian or other competent authority, shall have given by indenture, relinquishment, or otherwise, adequate power to the Mayor, Aldermen, and Citizens of Philadelphia, or to directors, or others by them appointed, to enforce, in relation to each orphan, every proper restraint, and to prevent relations or others from interfering with, or withdrawing such orphan from the institution."

I have shown already that I consider this a most salutary provision; but it remains, nevertheless, a question, whether the directors or guardians of the poor have the power of doing so. Suppose, however, they have, it seems to me certain that the city of Philadelphia, to which such an orphan has been bound, have no power of binding him out a second time to "suitable occupations, &c., after he has finished his course of education." Yet this is required by the testator in page 23.

An act of the legislature will be requisite to carry this provision into effect.

According to the meaning which I have thought necessary to give to the word *fatherless*, you will find that the Board of Admission would have the right to receive, under certain circumstances, illegitimate children. The two important questions on this subject, are:

1. Is it just to admit illegitimate children?
2. Is it expedient to do so?

If people exclude illegitimate poor orphans from asylums, as for instance, the New-York Orphan Asylum does, they consider, in the moment in which they draw up such provision, the faults of the parents only; yet such children present themselves with peculiar claims upon our charity, for the very reason that their reputation is against them, and that they have no father to take care of them. The times have passed when it was believed that an actual stain existed in the blood of an illegitimate child. Our laws, I believe, throughout our vast country, make no difference between legitimate and illegitimate children, except as to the right of inheritance. Throughout the civilised world it is justly believed that the illegitimate child has nothing to do whatever with the fault of its parents, and the only question can be, is it expedient to admit illegitimate children? It has been said that by doing so, orphan asylums would become foundling hospitals. I believe no such thing. By a similar way of reasoning it might be said, that Girard College is calculated to encourage improvidence, since a dissipated man may calculate upon the reception of his child in Girard College, if he leaves it without any property. Illegitimate children are not brought into existence considerately, and after mature reflection; and I believe few women would lend themselves to illicit intercourse on the consideration, that after seven years, after they have had all the trouble and expense of nursing and rearing the child, it *may*, under certain circumstances, *perhaps*, be admitted as a scholar

in Girard College. Christ received and pardoned the guilty adulteress, would he have rejected her innocent offspring? The New-York Orphan Asylum does not admit illegitimate children, yet, by a strange inconsistency, it receives the children of criminals sentenced for a long term. Thus it does not fear to encourage crime in the latter case, whilst it is afraid of encouraging vice or misconduct in the former. Has it ever been urged that the several schools, established for children of criminals, have encouraged crime?

However, I have thought it necessary, in consideration of many weighty reasons, to exclude the children of convicts from being admitted in Girard College.

Very different from the question of illegitimate children, is that, whether children may be received into the college whose father is alive but unable to work, in consequence of infirmity, brought on by intemperance. The fatal habits of intemperance are gradually contracted, and here it might indeed be objected, that a father may more easily yield to his vitiated thirst, on consideration that, if the abuse of spirits should render him unable to work, and ruin his fortune, his son may yet be received into the college. I do not deny that this reason, the frequency of the vice of intemperance in our country, and the consideration, that by admitting the children of such unfortunate men, we shall often receive children whose physical and mental organisation will be little fit for the education given in the college; that all these are weighty objections, and, I confess, I had drawn up a provision which would have excluded children of drunkards from the benefit bestowed by article six of the following constitution, upon the children of disabled fathers.—Yet, after maturer reflection, and a careful weighing of every reason, for and against, I felt myself obliged to erase this provision; so that, according to my proposition, a child of a father who has become permanently infirm, and decidedly and lastingly disabled, in consequence of intemperance, shall not be excluded. But the Board of Admission ought, in such cases, to be particularly

attentive to the health and state of mind of the child to be received. Awful and cruel as it is, it is yet true, that the children of intemperate persons are often so deficient in mind and body, that the education of the college would be no benefit to them, whilst they would be an injurious burden to the institution.

That such children only can be received into the college as are sound of body and mind, is clear on general grounds, and also requisite by the provision of Mr. Girard, that after their course of education shall be completed, they shall be bound to practical occupations. It will therefore depend upon the discretion of the Board of Admission, to determine in each individual case, what bodily defect is, or is not, contrary to the reception of a child. Thus, I would perhaps, admit a child with one arm only, if otherwise in good health, but a blind or dumb child cannot be admitted; though I have proposed a provision for those orphans who should become so after their admission into the college.

I have proposed a provision which may enable a child to complete his course of education in the college, if, after having been three years in the same, and having conducted himself always to the satisfaction of his teachers, he comes into the possession of property, and his legal guardians are willing to pay a sum for his farther education, to be determined by the proper authority, and to be used for the education of the poor. The considerations which induced me to make these provisions are these: 1. If the whole course of education which I propose, is adopted, it will materially differ from that pursued in other institutions. If you may systematically regulate the course of education from the sixth year of a child, to his sixteenth or eighteenth year, you may safely arrange it in a very different way, from what you are obliged to do, if the child is only entrusted to you for a few years, and then only, in most cases to your partial superintendence. The consequence therefore, would be, that a child, having begun its education in the college, and then being suddenly interrupted in it, would not

only sustain the loss accruing from his being prevented from enjoying the farther advantages of the education offered by the college, but he would be actually thrown back, by being obliged to begin a totally new course of education. This is certainly against the spirit of the will. 2. Such a case can happen but very rarely, and no material disadvantage can ensue from my provision. 3. The testator makes the continuance of an orphan in the college, solely dependent upon his *merit*. He says, page 23, "those scholars, who shall merit it, shall remain in the college," &c.

I do not doubt but that the provision which prescribes, that no scholar shall pass from one class into a higher one, except after having proved, by examination, his fitness for promotion, will meet with your full approbation. It is indeed the only course adapted to the best acquirement of knowledge in schools. Wherever in our country the time which a scholar has spent in a certain class, is made the only or chief test for his advancement into a higher class, it is in my opinion a course traditionally adopted, and not in consequence of unbiassed reflection and calm investigation, and I do not hesitate to pronounce it a remnant of darker ages. In former times, sciences as well as the fine arts, were taught in the same way as mechanical arts. The apprentice was always bound for a certain time, before the lapse of which he could not be promoted to a higher degree. England, which clings with greater fondness to some ancient institutions than other nations—a circumstance from which she has reaped many inestimable advantages, mixed however, as all things in this world are, with necessary disadvantages—has not thrown off some of the shackles in respect to the study of the sciences, which on the continent of Europe have long fallen to the ground. There yet exists in England a regular apprenticeship of the law, bound to a certain period of time. We have adopted the form of our colleges from England, and with it, the promotion of scholars mentioned above. No such thing is known, however, in the most enlightened parts of the Euro-

pean continent; I believe I am right, if I say, that it exists no where in the better protestant schools. That we meet with it in many catholic schools, is owing to the same cause that we meet with it in our colleges—to tradition; whilst all the protestant schools on the European continent, were remodelled at the time of the reformation, or first established in that period.

The idea that the acquirement of a certain skill in mechanical arts, solely depends upon the apprentice's having spent a certain number of years with a master workman, is now given up in all enlightened countries; and should we retain this principle in the cause of education, where we move in the freest sphere, that of the human mind, and where no mechanical skill forms our test? Man always elevates himself slowly from the stiff, unyielding and shackling form, to the free empire of the mind; it is so in the mechanical and fine arts, in politics, in sciences and education; it is time that we do so in regard to the latter.

I remember having heard it asserted on another occasion,* that the adoption of the course which I have proposed, would cause an undue exertion of the scholars. All I had to answer was that no undue exertion has been the consequence, wherever it has been adopted for years and centuries; that a scholar ought to exert himself in order to advance into a higher class; that his exertion ought to meet with a proper reward; that no teacher is afraid of too great exertion with his pupils, but of the contrary, and that it would be cruel to retard a pupil whose diligence or talents enable him to proceed faster, as it would be cruel to push on a pupil, whose limited talents do not permit him to go on with equal rapidity. That there might be a moral objection against this plan, because it makes the pupils feel the difference of talents, and thus might irritate their youthful minds, has no foundation whatever, in my

* In the sessions of the first meeting of literary men in New York.

opinion. 1. I never have seen any such evil consequences. 2. If a scholar less gifted, has to exert himself more than another, more favored by nature, in order to pass over with him into a higher class, it is the very effect which ought to be produced. 3. If the scholars should be led by the effects of this plan, to grave reflections on the unequal distribution of mental powers, is this an evil? Have they not to be prepared for this unequal distribution in after life? Do they not meet with it at every step; and shall we change in education the divine order of things? 4. By my proposition, to give to each scholar an opportunity to advance into the next higher class every half year—an arrangement which exists in all Prussian schools—every possible objection, which nevertheless might exist in the minds of those who are accustomed to the promotion by time, is, I hope, effectually obviated.

I was led to the proposition that the presidents of the Philosophical Society, of the Academy of Natural Sciences and of the Franklin Institute, should be perpetual members of the Board of Examination, by a similar provision respecting the *Ecole Polytechnique* in Paris, and by the consideration, that much advantage may ensue from this arrangement, whilst, in my opinion, it cannot possibly have any consequence to the contrary.

The experience of most, perhaps all larger institutions of education, warrants the provisions contained in articles 87 and 88. In the Ecole Polytechnique, this zeal of teachers became sometimes a serious evil.

I found it natural to propose, in article 200, that the college seal should represent the portrait of the founder. If the portrait of monarchs, as founders of universities, are represented on their seals, that of Mr. Girard, certainly deserves it, and however offensive it would be to our feelings, to see a similar representation of a living person, there can be no objection, I believe, to commemorate in this way the departed.

The scroll, 'KNOWLEDGE, PERSEVERANCE, TRUTH,' seemed

to me, proper for a *college* established by the earnings of the most *persevering* man, where *truth* inmorals and science, shall be inculcated and taught.

Articles 214 and 215, have been proposed in imitation of the *numbers* (I., II., III., and I., with distinction) which are awarded to the Prussian scholars, when they leave the Gymnasia for the university, indicating their merit, ascertained in respect to knowledge, by a severe examination, oral and in writing, which lasts generally four days. These numbers have no effect as to their university studies; but in all applications for any public or private station, he who has the best number will, all other things concurring, derive great advantage from it; and I have believed, that a youth leaving the high-school of the college with number I., might have in it a powerful recommendation for practical life, if it is well understood that great knowledge, and a pure moral character are requisite for obtaining it. I should have wished to establish a control over the awarding of No. I., for instance, by laying the productions of the scholars, which they have written by way of examination, and in consequence of which No. I. or No. II., shall be awarded, before a scientific committee, who should have the right to state their objections to, or concurrence in the opinion of the Academic Board in awarding these numbers; but who should constitute this committee? In Prussia they are officers of government; with us it would be necessary to appoint private citizens for it, who cannot be expected to give gratuitously so much of their time, as the examinations of those productions would require. But if you think an arrangement might be made, I would by all means advise, to add an article to the constitution, which enjoins the Board of Directors and the Select Council of Philadelphia, together, to appoint such a committee.

Such names as I propose in article 208 have often produced very good effects in English universities. It will not be supposed that, if I advise in the Regulations not to let the or-

phans clean their own boots or shoes, it has been done because I consider the labor unbecoming to them. The cadets in West Point do all kind of chamber-work belonging to their room, and if the cleaning of shoes were unbecoming to poor orphans, to whom should it be becoming? On the contrary, I have always believed that a child or youth ought to learn and try every thing; if he like to ride, let him know how to saddle, clean and take care of a horse; no person is the worse for knowing how to sew on a button. All knowledge of a similar kind is valuable, and gives, by the acquaintance with numerous details of life, a clearer view of it; we enter much easier into the views and wants of our fellow-men, and every information we obtain, however trifling, is the stepping stone for the acquirement of new knowledge.

How helpless beings do we not meet with in our life, who for the want of a trifling knowledge expose themselves to great inconvenience and even danger! There are persons who do not know how to tie a firm knot; and who has travelled far, that has not experienced the great importance of possessing this very humble kind of skill? Who has been present in great dangers at sea, or in a wreck, and has not seen in such moments of trial the immense difference between handy persons, and helpless, cumbersome, passive individuals? Who has served in war, and does not remember how useful persons are, that have not disdained to acquaint themselves with the trifles of life? It is therefore, indeed, not from any objection which I have against the cleaning of shoes itself, that I make the proposal above alluded to, but simply because I believe it takes too much time; it is, after all, not done properly, and the soiling and injuring of clothes cannot be avoided. I find that in another large orphan asylum in Prussia, the same regulation exists, though the orphans are paupers. It is different with cleaning the clothes. In general the orphans ought not to be allowed to leave the college without having learned to

overcome with ease the trifling difficulties or occurrences of life.

That each orphan ought to have a press or chest, or some place which he may call his own, seems to me necessary for cultivating the sense of order. Besides, the desire of property, that is, of possessing something which we can consider exclusively our own, and over which we have a regulating power, is so deeply planted in man, at least in most races (the Indians seem to make an exception) by the Creator, who thus laid the germ of all civilisation within us, that whatever we may do, this desire will break through. See the little boxes in the narrow cells of our houses of refuge, how the inmates contrive to have something in the world which they may consider exclusively theirs. That a proper cultivation of this sense ought not, and need not interfere with the other and equally important disposition which keeps men together in societies, and induces them to sacrifice individual advantages to the general good, is clear.

I have proposed to establish under the direction of the college, evening schools for those orphans who have been bound out to the various trades in Philadelphia. They are of great importance, and have been found of material service in other countries. The Orphan Asylum in Amsterdam has established them, and has found them useful in the highest degree. I should even advise the delivery of lectures in the city of Philadelphia, under the direction of the college, on subjects connec ted with polytechnics. Lectures for instance might be delivered for machine-builders, for workmen in metals, for others who want the knowledge of chemistry, such as dyers, &c. &c. These lectures, of course, ought to be for the benefit of former scholars of Girard College.

Article 9. paragraph 1. of the following constitution, requires, that an orphan should be born in the United States, in order to claim admission into the college. This is agreeable to the will. Mr. Girard says, a preference shall be given to or-

phans born in Philadelphia; 2. to those born in any other part of Pennsylvania; 3. to those born in New York, and lastly to those born in New Orleans. He thought that they would fill the college; but should they not, it is but a fair inference from the above, that he would select those orphans born in any other state to those born out of them.

I have given article eight such as you will find it, because I thought that no person is able to see beforehand, to what a degree excitement may rise at some future period, and under some circumstances, and that at some distant time, the laws which it has been thought necessary to enact in most of the slave-holding states, according to which no color, even if it is without the slightest visible admixture of African blood, makes free, might possibly be taken as a guide in the decision as to who is a white orphan, if no positive law should prevent such occurrence. On the other hand there are individuals, *e. g.* children of Brazilians, Portuguese and Mexicans, &c. who have so strong an appearance of African descent, that I thought the second part of article eight necessary.

You will agree with me, Gentlemen, that the president of the college ought to have the sole appointment of the secretary of the college, if you agree with the duties which I have assigned to the latter; their whole discharge will depend so much upon the individuality both of the president and the secretary, that the former alone can be a proper judge, whether a certain individual will, with facility, perform all the minute labor which he has to assign to him. A very worthy person might be appointed by others for this place, and yet he might be of little assistance to the president of the college.

The provision which you will find in article nine, paragraph three of the constitution, I thought was called for by the third paragraph of clause XX of the will, in page 21. If there are many applicants, it may happen that an orphan, whose name was entered as expectant, when he was between six and ten

years old, has passed the tenth year when a vacancy offers for his admission; should he be refused admission in such a case? Again, if we say, either that orphans older than ten years, may be admitted, provided they have made proper application, and have been found well-qualified for admission before their tenth year, or that the words of the will, "between the ages of six and ten years," (clause XX. par. 3, page 21,) have reference to the admission of the first orphans only, and that the words, "and from time to time as there may be vacancies or as increased ability from income may warrant, others shall be introduced,"(ibid.) have reference to orphans of all ages—then it becomes necessary to determine something respecting their education, which they ought always to possess, lest we defeat the great object of the testator, of giving a thorough and systematic education in the college. Suppose a number of boys of thirteen years of age, without any instruction or moral education were to be admitted, what profit could they derive from the education of the college? hardly more than what any pauper school might offer them; and on the other hand, what incalculable disadvantages to the college would not arise from such a state of things! Should all those immense expenses have been incurred, those great exertions have been made, in order to effect, at the highest, their instruction in reading and writing, and hardly giving them any *education?* There is still another consideration. It was the evident intention of the testator, that no boys with settled vicious habits, neglected in knowledge, and having obtained a certain age, should be received in the college. He wished that a thorough education should be given, beginning with most scholars at a tender age. If, however, the Board of Admission shall not be invested with the distinct right of using their discretion, as to the selection of boys, in regard to their age, it will so happen that if applications are numerous, a child will hardly ever begin his education in the sixth year, and that a number of teachers, &c. are kept for classes, not counting more than two or three little scholars. I would pro-

pose, therefore, to give on this point great discretionary power to the Board of Admission, which the will fully permits by the words "all other things concurring," in passage six, clause XX, page 21, and which the natural rule, received every where, prescribes; that the general design of the testator overrules the special directions, so that the latter can only be admitted as far as they agree with the former, because the testator cannot have had the intention to defeat his own object and design.

Gentlemen, you have honoured me with a call to propose a plan for Girard College. I have collected all the information I have been able to obtain in this country, and, within the proposed time, in Europe, and I have endeavored to make it serviceable to the great end before us; I have laid before you the results of my experience, and in some respects, the study of my whole life; yet even if you had made a much better choice, the necessity of a personal inspection of the most important European institutions, in some way similar to what Girard College is to be, could not in my opinion, be dispensed with, in order to carry properly into execution the great plan of Mr. Girard in all its minute details. However good a provision, a law, a plan may be, its *operation* is by far the most important part; and this operation, which is influenced by a thousand minute springs and causes, cannot be thoroughly understood and clearly conceived, without personal inspection—without, to use a medical phrase, autopsy. If it is difficult thoroughly to understand the operation of a machine, without seeing it, or the application of a prescribed pathological course, without actual experience in real cases, it is much more difficult to understand the operation of any institution, which brings the moral springs of man into action, without *viewing* their operation; and, though I am personally acquainted with many institutions for the education of youth, I have become impressed throughout the course of my labors, with the great advantage which, Gentlemen, you would derive from sending a proper and well-prepared person to Europe, in order to inspect the

most important polytechnic schools, and other establishments in which a great number of orphans are educated, and to lay before you the result of his studies on the spot. He ought to be well prepared for his mission, both as to a knowledge of the languages spoken in the countries to which his mission will extend, as without it he would be unable to study those details which will form a prominent object of his attention, and as to a sound knowledge of education, schools, &c. so as to be able to direct at once his attention to the most important and essential points. To learn the languages in those countries, or to *begin* a knowledge of the institutions on the spot would require too much time, and yet not lead to the desired and necessary result.

It may not be without some interest to refer here to several missions of a similar kind in modern times. Cottu's famous work on the Judicial System of England, Dupin's excellent production on British Trade and Industry, Cousin's work on National Education in Prussia and other German States, Beaumont and Toqueville's work on our Penitentiaries—they, and many other French publications, owe their origin to the enlightened spirit of the French government, in sending persons to observe with their own eyes. There are now two English gentlemen, Mr. Crawford and Mr. Newman, sent by lord Brougham, among us, to inquire into our prisons; I knew here two millers, sent by the Prussian government to study the improved flour mills in the United States. Persons have often been sent by various governments, the Russian not excepted, to inquire into the nature, organisation and operation of the *Ecole Polytechnique* in Paris; miners and engineers have frequently been sent to England and Germany—but enough of instances. I am convinced, that much valuable information might be obtained, if a gentleman, already generally acquainted with the education pursued in the institutions to be inspected, so that he knows to what points he has chiefly to direct his attention, were sent to Europe.

I have spoken, at the beginning of my introduction, of the

great importance of making Girard College, besides its being a polytechnic institution, also a seminary for teachers. This is a novel kind of institution, and ought to be studied in those countries in which they exist in the greatest number and in the highest perfection—in Prussia and in Bavaria. As to the other institutions, chief attention ought to be directed to Polytechnic schools for the study of the instruction which they afford, and to asylums and schools in which a great number of children are supported, for the study of discipline, and physical management.

England, France and Germany, would be, therefore, the most important countries; and Christ's Hospital, Chelsea Hospital school, the *Ecole Polytechnique*, some *Ecoles d'Application* in France, the Orphan Asylum in Potsdam, the Franke Institutions in Halle, the Polytechnic schools in Berlin, Vienna, Carlsruhe, Hanover, Munich, &c. together with a number of seminaries for educating teachers, such as those at Magdeburg, Potsdam, Neu-Zelle, would be among the institutions which deserve particular attention and an accurate study of:

1. Their government and organisation;
2. Their instruction;
3. Their discipline and education;
4. Their physical management;
5. Their mode of operation for a series of years, and the result of their efforts.

As it is the will of the testator, and in fact very necessary for the success of the college, that a library should be established, and as it will be requisite to procure several instruments and an apparatus in Europe, the purchase of these books and instruments might be conveniently made objects of the same mission. A collection of the most valuable works on education, and of school books, such as the excellent French *Cours* prepared for the various classes of the *Ecole Potytechnique*, and of many German school books, might be made with great facility

on the spot, whilst it would be very difficult to make a proper selection in any other way.

It would be necessary that a gentleman proposed for this mission, should lay before you a clear and detailed plan of what he intends to do, and how he intends to proceed, so that under your direction he may employ the time, which you will allow him, to the greatest advantage, in respect to all the different and important objects for which you will require his service provided this plan of his seems to you of a character to warrant his appointment.

I might have avoided the discussion of several points, delicate either in themselves, or rendered thus by the wording of the will, and in this way might not only have rendered the task easier to myself, but also obtained with greater probability a favorable opinion for my whole labor; but I had laid it down as a rule, when I first undertook it, to shrink from no question, to investigate according to my best ability every point, of whatever nature, if connected with the main subject, and to leave nothing untouched as far as I should be able. I have strictly adhered to this rule, because it is thus only, I believe, that we can arrive at the desired end in the most expeditious way. Whether I have done right in adopting this rule, and in how far I have succeeded in applying it, it is for you, Gentlemen, to decide.

If I should appear to have been too minute in some provisions, which I propose, I would beg to remember, that besides the few positive injunctions, and some indications of Mr. Girard's, every thing was to be ascertained and fixed. An immense region was lying before me, on which it was my duty to lay out a well and clearly defined territory, in the most proper situation to be settled upon. If on the other hand I have omitted to treat on subjects which you think important, all I can say is, that I shall think it always an honor to be called upon to give farther information, which I may have collected, but was unable to embody in this report, perhaps

already far exceeding the bounds to which you may have been desirous so see it limited. I hand it over to you with a confident hope in your indulgent consideration, which, however much my deficient ability may have disappointed you, you will not withhold from my earnest application.

We all wish, with equal ardor, that this institution may become a nursery of knowledge, of virtue and of a genuine love of our country and our liberty, that its plan and structure may not be behind the advanced state of science, but that it may be fully adequate to the great wants of our time, and thus have a healthy, active and widely beneficial existence; we all hope with equal fervor, that in all future times, many thousand men may be in existence "who will owe to Girard the greatest of all possible blessings; a virtuous education; men who will have been rescued from want, and perhaps vice,* and armed with power to rise to wealth and distinction. Among them will be

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* May I add a few lines to these words of your president. As it is a question of great interest to the criminalist and moralist, to know how many convicts have lost their parents at an early age, I begged Mr. Wiltse, the agent of the Sing-Sing Penitentiary, to answer certain queries, which he promptly did, with that kindness with which he has always afforded me every information, respecting the state-prison under his superintendence. There are above 800 convicts in Sing-Sing. Some few of them were unable to say when they had lost their parents, of whom, therefore, many must be supposed to have lost them early; of the others:

48 lost their parents before they were five years old;
72 - - after they were five years old, and before they were fourteen years old;
41 - - after they were fourteen years old, and before they were eighteen years old.

161 lost their parents before they had arrived at their eighteenth year, which makes one-fifth of all the prisoners. If we add to them those who were unable to give an account of themselves, we may say that nearly one-fourth of all convicts lost their parents before they were eighteen years old. Of these, probably the greater part, say three-quarters, therefore nearly one-fifth of the whole number fell into vice in consequence of their forlorn situation—of having become orphans at an early age.

found some of our best educated citizens, accomplished scholars, intelligent mechanics, distinguished artists, and prominent statesmen."

*PHILADELPHIA, DECEMBER* 5, 1833.

# PART IV.

## CONSTITUTION.

### ARTICLE 1.

In virtue of the benevolent bequest of the late Mr. Stephen Girard, of Philadelphia, in the Commonwealth of Pennsylvania, as contained and specified in his will and testament, of February the sixteenth in the year one thousand eight hundred and thirty, and in sundry codicils attached thereto, a *College for poor white male Orphans*, is to be erected on the site described, and to be established, governed and conducted, agreeably to the principles and rules laid down in the said will and testament.

### ARTICLE 2.

The college is to be called, *Girard College for Orphans.*

### ARTICLE 3.

An orphan is a fatherless child.

### ARTICLE 4.

Girard College considers every child fatherless:

1. That has lost its father by death;
2. Whose father has not been heard of for three successive years, though proper inquiries, satisfactory to the Board of Admission have been made;
3. Whose father labors under an incurable disease or in-

firmity, such as blindness, deafness, insanity, epilepsy, infirmity of old age, or any other physical or mental deficiency, that renders him incapable of earning his livelihood.

ARTICLE 5.

But a child of a sailor, in merchant or national service, if he must be presumed, according to the judgment of the Board of Admission, to have been lost at sea; and, farthermore, the child of a soldier, in the army of the United States, or the militia of any single state of the Union, who, in time of war, or service against or among the Indians, has been counted among the missing for some time, deemed satisfactory to the Board of Admission—such child shall be considered an orphan, though the three years as specified in article four, paragraph two, have not elapsed, according to the discretion of the said Board of Admission.

ARTICLE 6.

If a child has been admitted into the college according to article four, paragraph two, and according to article five, and has been two years in the college, and conducted himself to the satisfaction of the teachers and the president of the college, and it should appear after such period that the father is alive, yet poor, it shall be left to the Board of Directors of Girard College to decide whether such child shall, or shall not continue in the college.

ARTICLE 7.

Girard College considers a child poor, that is himself not possessed of, or whose mother, or parents, or grand-parents have not property sufficient to procure for the said child an education, which, according to the common standard of education in our country, is considered a decent and sound one,

which cultivates the moral and religious nature of the child; affords proper instruction for its future occupations, and gives a clear knowledge of its future duties as a citizen.

ARTICLE 8.

An orphan shall be considered white, either if there is proof that the child in question has a pure descent from that race, which is usually called the white race, or, if the child has no strong visible signs of an admixture of blood from any of those races which usually are called colored races.

ARTICLE 9.

An orphan, in order to be qualified for admission into the college, besides being a poor, white, male orphan:

1. Must be born in the United States;
2. Must be of sound mind and not afflicted with any serious disease at the time of admission, nor with any bodily infirmity which renders him incapable of application to study, or being benefitted by the course of education in the college, or his application to practical occupation in after life;
3. His education must not be in such a degree disproportionate to his age, as would materially interfere with the whole course of education given in the college;
4. He must have committed no crime, nor have been in a house of refuge. Should it happen, however, that a child had been sent to a house of refuge for juvenile offenders, merely because he was found in a forlorn situation, without any friends, and application should be made for his admission, with strong recommendations as to his behaviour and industry, he may be admitted if the Board of Admission think fit;
5. It must be shown that *the guardians or directors of the poor, or a proper guardian or other competent authority, shall have given, by indenture, relinquishment,*

*or otherwise, adequate power, to the Mayor, Aldermen, and Citizens of Philadelphia, or to directors, or others by them appointed, to enforce, in relation to each orphan, every proper restraint, and to prevent relatives or others from interfering with, or withdrawing such orphan from the institution,* and to bind them out again to other persons, after they have finished their course of education in the college, or to dismiss them before that time if the proper authority has decided that he has lost his qualifications for remaining any longer in the college.

ARTICLE 10.

No difference of religion shall ever influence the qualification for admission.

ARTICLE 11.

Before an orphan is finally admitted as a scholar into the college, he shall undergo a noviciate of three months, after which the Board of Admission determines, on a report of the president of the college, whether the physical and moral character of the orphan warrants his final reception.

ARTICLE 12.

Until this final admission takes place, the orphan shall have as little intercourse as possible with those already admitted.

ARTICLE 13.

There shall be a Board of Admission, consisting of two members of the Board of Directors, two members of the corportion of the city of Philadelphia, to be elected for one year, the president of the college and the college physician, which board shall judge of the foregoing qualifications in applicants for admission, by rules and regulations, hereafter to be stated, and

others to be adopted by themselves, or to be prescribed by proper authority.

ARTICLE 14.

Any three members of this board shall form a quorum, of which the college physician, or acting college physician must be one, if they decide on medical questions.

ARTICLE 15.

They direct every thing connected with the admission of orphans.

ARTICLE 16.

An orphan loses his qualification for remaining in the college:

1. If he comes into possession of property sufficient to procure a decent and sound education for the same. But if the orphan has been three years in the college, and conducted himself so that it would be a great hardship for the same, were his course of education to be interrupted, and to be begun anew in a different method, his guardian or guardians, or other competent authority, shall be at liberty to leave the said orphan in the college, if they oblige themselves in a way satisfactory to the Board of Admission, to pay an annual sum, to be fixed by the Board of Directors, for the education of the said orphan, which sum shall be used for the education of the poor.
2. If he be afflicted in the college by an incurable disease or infirmity, which prevents his application to study in the college, or his being sufficiently benefitted by the course of education. But if the affliction or infirmity be of a kind that the orphan, though incapable of being sufficiently benefitted by the education given in the college, may be educated in other institutions, established

for such disabled persons, such as asylums for the blind, or deaf and dumb—then such afflicted orphan shall be educated there on expense of the college, if no other person or body is bound to do so, or does so from his or their own accord.

ARTICLE 17.

The Board of Directors decides on all questions respecting disqualifications of an orphan after he has been admitted.

ARTICLE 18.

Any little property of an orphan, admitted into the college, shall be invested and taken care of, and at the time when the orphan leaves the college, be disposed of for his benefit, as the Board of Directors shall see fit.

ARTICLE 19.

The orphans shall be fed, clothed, lodged, and educated in the college.

ARTICLE 20.

*Their clothes and apparel shall be plain, decent, healthy and clean; their food shall be plain, wholesome,* sufficient and adapted to their age; their lodgings shall be *plain, safe, clean,* and *healthy;* and their education practical, useful, sound, thorough and well disciplined.

ARTICLE 21.

*No distinctive dress is ever to be worn by the orphans.*

ARTICLE 22.

This, however, does not exclude such distinctive mark, or badge, as the proper authority may see fit, to give to those scholars, who shall be invested with some kind of authority

over their fellow-scholars, in order to distinguish them among a large number of boys.

ARTICLE 23.

But no badge or medal to be worn as a distinctive mark, shall ever be given to any scholar as a reward of merit only.

ARTICLE 24.

The education of the orphans shall be a moral and religious one, a practical and scientific one, a political one, and a physical one.

ARTICLE 25.

As to morals and religion, *the purest principles of morality shall be instilled into the minds of scholars, so that, on their entrance into active life, they may from inclination and habit, evince benevolence towards their fellow creatures, and a love of truth, sobriety and industry;* and anxious care shall therefore be taken to cultivate their feelings and intellect with reference to the whole relation in which the created stand to their creator.

ARTICLE 26.

And all teachers and other persons, employed in the college, shall be well aware, that one of the surest means of obtaining this great end, is, that they shew how earnest they are themselves in striving toward perfection; and that they do not teach morals and religion as sciences are taught, in the full consciousness of the teacher's superiority, or by commanding merely the performance of certain duties, but rather by joining with the scholars as friends, who, though more experienced in the application of morals, and possessed of a more extensive and a more connected view of our obligations, yet are but their

equals in the presence of him, in whom all morals and all knowledge find their principle and end.

ARTICLE 27.

Every teacher in the college employed for the instruction of whatever branch, shall promote, as far as depends upon him, also the moral and religious education of the scholars.

ARTICLE 28.

All persons employed in the college shall scrupulously avoid giving a bad example in words or actions to the orphans, and shall always treat them with kindness even in cases which require severity. They shall before all endeavor to avoid all kind of passion, and in no case punish in a state of excitement. They shall always bear in mind, that there is no more effectual means of education than possessing the confidence of those to be educated, and the being considered by them their true and kind friend.

ARTICLE 29.

No person shall be employed in the college, who does not enjoy an irreproachable moral character, were it even an employment for menial services.

ARTICLE 30.

To the scholars of the higher classes of the college shall be given, in addition to the moral and religious education and instruction, a knowledge of the most important religious tenets, so that, *in leaving the college, they may adopt such religious tenets as their matured reason may enable them to prefer.*

ARTICLE 31.

As to practical and scientific education the scholars shall be taught, besides the subjects necessary to every member of a civilised community, more particularly those sciences, which will give them the greatest and soundest knowledge, attainable

by the given means and in the given time, on all subjects connected with those occupations, trades and arts, for which generally no classical education is required, so that they shall carry with them, when they leave the college, a store of sound and thorough information, respecting matters connected with their future occupation, and a genuine love of knowledge, which will never cease to induce them to new inquiries and new applications.

ARTICLE 32.

And since with our population, extending farther and farther over a vast country, the want of good and thoroughly educated teachers becomes daily greater, and since there does not yet exist in our country a seminary for the education of teachers, though education is an art or science which ought to be learned and studied like any other difficult art or science, and since Girard College will offer a most favorable opportunity of teaching this art to such of the orphans as shall merit it and shall feel inclination to this honorable vocation—therefore there shall be given in Girard College the necessary instruction in education and opportunity of its application to such youths.

ARTICLE 33.

Girard College therefore shall be in its scientific character a polytechnic college and a seminary for teachers.

ARTICLE 34.

*Especial care shall be taken to form and foster in the minds of the scholars by every proper means, a pure attachment to our republican institutions, and to the sacred rights of conscience, as guarantied by our happy constitution.* The scholars, therefore, shall be soundly instructed in the principles, theory and practice of our government and political institutions, their origin, history and operation, and in the principles of law and legislation, and in history in general, without which they would not be able to understand clearly and thoroughly the

organisation of that society in which they live and will have to take an active part for themselves.

ARTICLE 35.

They shall be made well acquainted with all the important and weighty duties which they will be called upon, at a future period, to discharge as citizens of a free nation, which is so much the more important as they are orphans, many of whom will not be linked to their country by those family ties, which exercise a powerful influence with other men.

ARTICLE 36.

Their physical education shall be promoted chiefly by the greatest possible cleanliness (which is likewise of great moral effect,) order, wholesome diet, proper recreation and enjoyment of the open air, and the instruction in, and practice of gymnastics, taught in a regular, gradual and natural progress, adapted to the various seasons and respective ages.

ARTICLE 37.

The subjects therefore to be taught and practised in the various stages of education, and according to the respective merits and wants of the scholars shall be: morals and religion; writing; drawing (figure and landscape drawing, ornamental, machine and architectural drawing, and drawing of maps, &c.); the art of expressing our ideas clearly, coherently and correctly in our vernacular tongue, both in speaking and writing (including grammar, elocution, and debating); English literature; reading; arithmetic; mathematics (pure and mixed; including navigation, mensuration, astronomy, descriptive geometry, &c.); architecture (civil, naval and hydraulic); technology; agricultural sciences; book-keeping; geography; ethnography; natural philosophy; chemistry; mineralogy; geology; botany and zoology as far as practicable; machine-building; history with particular regard to the history of civilisation

in politics, arts, sciences, and religion; and explanation of, and instruction in the occurrences of the day; statistics; the principles of political economy, of natural law, the law of nations, English and American law, and a comprehensive view of civil rights and civil duties; moral and mental philosophy; French and Spanish; German and Latin; gymnastics; military drilling; the science of education; *and any learning and science which the capacities of the several scholars may merit or warrant*, and may comport with the general character of the institution.

ARTICLE 38.

The scholars shall farther be made acquainted with, and practice, such mechanical or other arts, as shall be most useful in giving them an understanding of the most important elements of mechanical arts, or a general manual skill, or shall be most conducive to health.

ARTICLE 39.

And they may be made acquainted with the chief labors of gardening and orchardry, and may be taught any art, the knowledge and diffusion of which is considered of great importance to our country, and which may be taught in the college without interfering with the order, discipline, or more important studies.

ARTICLE 40.

In teaching these various branches, shallowness and narrowness shall be equally avoided, as there is nothing more inconsistant with the true and momentous end of education than superficial shining or short-sighted illiberality.

ARTICLE 41.

*The orphans shall be taught facts and things, rather than words or signs;* inventing and finding, as well as applying that which has been found, shall constantly accompany the instruction in every subject, which permits of it, so that the minds of

the scholars shall be thoroughly trained in self-activity, and the art of study and inquiry, and that that method, not uncommon both in England and here, which relies chiefly upon committing to memory, and a mechanical learning, shall be entirely avoided.

ARTICLE 42.

On the other hand all proper means shall be taken to strengthen their memory—that most useful instrument in all occupations. It is a subject which requires especial attention, since it has been much neglected of late, whilst the rapid extension of knowledge in our times, and the increasing communication between nations and men, makes a good memory more necessary than at any previous period.

ARTICLE 43.

The education as indicated in the forgoing provisions and to be more detailed in further provisions shall be directed, superintended, and put into practice by the following boards, committees, officers and other persons appointed for and employed in the college.

ARTICLE 44.

There shall be:

A Board of *Directors*,
A Committee of Finances,
A Treasurer,
A Board of Examiners,
Visiters of the College,
A President of the College,
Professors of the Faculties,
An Academic Board,
Assistant Professors,
Teachers and Assistant Teachers,
A Librarian,
A Physician and Surgeon,

An Apothecary,
A Steward,
A Secretary of the College,
A Conservator,
A Gardener,
A Matron,
Assistant Matrons, and such other persons as shall from time to time, be found necessary for the good government of, or discipline and education in the college.

ARTICLE 45.

The Board of Directors shall consist of nine members, to be chosen by the Select Council of the City of Philadelphia for six years, in such a manner that one third of them leaves the board every second year, and of the President of the College.

ARTICLE 46.

But the first Board of Directors, shall consist of six members, chosen by the Select Council of the City of Philadelphia, and three by the Board of Trustees of Girard College, and it shall be decided by lot who shall leave the board after the second, and after the fourth year. This first Board of Directors shall be authorised to act, previous to the election of a President of the College, in the same way as after his election.

ARTICLE 47.

Any six members of the Board of Directors shall form a quorum, if notice of a meeting, sufficiently long beforehand has been given.

ARTICLE 48.

As soon as the Board of Directors is legally constituted the authority of the present Board of Trustees shall expire.

ARTICLE 49.

No member of the Board of Directors, except the President of the College, shall have any salary for his services, or derive otherwise any pecuniary advantage from his station.

ARTICLE 50.

The Board of Directors choose a President from among their number, for the time that he sahll be a member of the board, if the President of the College is not chosen President of the Board; if this is the case, he is chosen for two years only.

ARTICLE 51.

The Board of Directors divides itself into three standing committees, namely,

1. That of study and discipline;
2. Of physical education, diet and physical management of the college;
3. Of indenture.

ARTICLE 52.

The President of the College is a member of each of these committees.

ARTICLE 53.

If a special committee is appointed for the investigation of, or the whole Board of Directors take into consideration, the conduct and character of the President of the College, he shall not be present. But he must be informed of the result of such meeting, and fully heard on any charge against him.

ARTICLE 54.

The Board of Directors has the chief direction, management, and superintendence of the whole college. It is its duty to determine in general on the subjects to be taught, and the education to be given in the college; to propose to the Select Council of Philadelphia, the appointment of persons as presi-

dent of the college, faculty professors, physician or steward, and to propose to the said corporation their discharge; to appoint all other persons employed in the college, except the secretary of the college, and to discharge them after mature investigation; to publish all official information on the college; to bind out the orphans, and make proper arrangements for them, when they leave the college; to propose the salaries of the various persons employed in the college, and to superintend and verify all college expenditures; to determine on the prizes offered to the scholars; to dismiss scholars, on a report of the Academic Board if found necessary; to determine on text-books proposed by the Academic Board; to buy all necessary books, apparatus and utensils, on the proposition of the Academic Board; to direct or superintend, the contracts for victuals, furniture, &c. of the steward; to determine on temporary arrangements of the president; to appoint any person or persons in order to obtain information, within or without the college; to pay from the college funds any expense it may incur by the proper discharge of its duties, and to do every thing that a wise and good government of the college shall require from its chief governors.

ARTICLE 55.

The President or acting president of the Board of Directors, has a casting vote besides his vote as member.

ARTICLE 56.

The Board of Directors shall receive power from the Common and Select Councils, and the Mayor of Philadelphia, to make disbursements from the college fund, to a fixed extent, without being previously and especially authorized for the case.

ARTICLE 57.

The President of the College shall have the right to call together a meeting of the board, though he be not president of the same.

ARTICLE 58.

The board shall meet once a month, or oftener if necessary, until the college has fairly got into operation. But it never shall meet less than four times a year.

ARTICLE 59.

The Board of Directors shall not decide on any special matters of education, or study, without having previously obtained the opinion of the Academic Board.

ARTICLE 60.

Every member of the Board of Directors has a right to visit the college at any time, and inform himself personally about any matter concerning the same.

ARTICLE 61.

The will and testament of Mr. Stephen Girard, *enjoins and requires that no ecclesiastic, missionary or minister of any sect whatever, shall ever hold or exercise any station or duty whatever in the college; nor shall any such person ever be admitted for any purpose as a visiter, within the premises appropriated to the purposes of the said college.*

ARTICLE 62.

Ecclesiastics or ministers, are persons who, according to the rules and usages of their respective religious sects, have been set apart, and officially authorised to preach and to administer their respective religious rites; and missionaries are persons whose chief occupation or object, is that of propagating a certain religious creed.

ARTICLE 63.

Any person therefore, to be employed in the college, or elected for any board or committee belonging to its government, or desirous to visit the college, shall sign a declaration, or otherwise declare in a way satisfactory to the proper authority,

that he is no ecclesiastic or minister, or that he, or she is no missionary.

ARTICLE 64.

There shall be a Board of Finances, to consist of five members, three of whom shall be elected by the Corporation of the City of Philadelphia, and two of whom shall be elected by the Board of Directors from among themselves, the first for the term of three years, and the latter for the term that they shall remain in the Board of Directors.

ARTICLE 65.

They shall have the management of all financial matters of the college, the investment of the capital, keeping account of them, paying the checks, drafts and bills, drawn and made out by competent persons and authorities, in such a manner, and according to such rules as the Corporation of the City of Philadelphia shall from time to time direct.

ARTICLE 66.

They shall appoint a treasurer and such other persons, with the consent of the said corporation, as they shall think fit.

ARTICLE 67.

Their annual report shall be published, together with that of the President of the College, under the authority of the Board of Directors.

ARTICLE 68.

There shall be a Board of Examiners to consist of three members elected by the Select Council of the City of Philadelphia, of three members elected by the Board of Directors, three by the Board of Finances, all elected for three years, and of the President of the Philosophical Society of Philadelphia, the President of the Academy of Natural Sciences at Philadelphia, the President of the Franklin Institute of Phila-

delphia, the President of the Academy of Fine Arts in Philadelphia, and of the president or highest officer of any society which may be established at any future period in Philadelphia for the promotion of sciences or arts, if the Board of Directors thinks fit to add him to the Board of Examiners; yet such persons shall never be the chief officer or teacher of any school, college, seminary or university.

ARTICLE 69.

The president of the college cannot be a member of the Board of Examiners, except in the case to be specified below.

ARTICLE 70.

The Board of Examiners shall have the right to appoint at any time a committee to be present at the instruction or the Sunday afternoon discourses in the college.

ARTICLE 71.

The school year is divided into two parts called terms.

ARTICLE 72.

The Board of Examiners shall, at the end of each term, proceed to the college and examine, in a way determined upon by them, the state of instruction, discipline and education, in general, both moral and physical, the diet, sanitary state, &c.; the financical state of the college; for which purpose they shall be divided into three committees, one, to consist of six members, for the examination into the moral and mental education; one, to consist of three members, to examine into the physical education and sanitary state of the college, and one to examine the college accounts.

ARTICLE 73.

If at any future time it should be found that the accurate examination of these branches should be too extensive a labor for the above number of members of the Board of Examiners,

they shall have the right to elect as many more as they think fit. And they shall, likewise, have the right to fill up vacancies, if one or more of the members are prevented from attending the examination. And if there is no time to hold a meeting of this board for filling up vacancies, before the appointed day of examination, the president or chairman of this board shall have the right, alone, or with as many members as he can conveniently assemble, to appoint examiners in order to fill up the vacancies.

ARTICLE 74.

After they have concluded their examination, they shall draw up a report on the result of their labor; and then shall, together with the President of the College, discuss and devise such improvements as they shall think best for the well-being of the college, and the more perfect attaining its great end. The report, together with the proposition of improvements, shall be directed to and laid before the Board of Directors, and the Select Council of Philadelphia.

ARTICLE 75.

The members of the Board of Examiners are also official visiters, as likewise the Governor of the state of Pennsylvania, the Mayor, and the members of the Select Council of the city of Philadelphia.

ARTICLE 76.

There shall be a President of the college.

ARTICLE 77.

He is the highest authority within the college proper, where he resides.

ARTICLE 78.

His salary is (besides lodging and fuel) dollars,

or more, according to the decision of the Corporation of the City of Philadelphia.

ARTICLE 79.

The college pays the postage for all his correspondence.

ARTICLE 80.

The President is elected by the Board of Directors, taking the advice of the four faculty professors, (except the first president, if no faculty professors yet have been appointed), and confirmed by the Select Council and Mayor of Philadelphia.

ARTICLE 81.

If the Board of Directors see fit to elect one of the faculty professors as President of the College, the advice of the faculty professors is not taken.

ARTICLE 82.

The President is solemnly inaugurated by the Mayor of Philadelphia.

ARTICLE 83.

He is discharged on the proposition of the Board of Directors only, and after he or any other person authorised by him, has been fully heard on any charges against him, by the Select Council and Mayor of Philadelphia.

ARTICLE 84.

It is the duty of the President of the College to watch over the faithful observance of all laws and regulations, and to take, with the assistance of the Academic Board, proper means to ensure their execution; he has the constant and concurrent superintendence over the teachers, assistants, officers and other persons employed in the college, for whom his decision is final, until otherwise determined upon by the Board of Directors; he is the legitimate and chief organ through which the Board

of Directors, or any other competent authority, act upon, and within the college, he is a member of all boards and committees instituted for the management and government of the college, unless otherwise determined by this constitution; he has to sign all accounts of the college expenses before they go to the Board of Directors and of Finances; he pays attention to every thing that can ensure the success of the college, and is expected to keep an eye upon the progress of the cause of education, in the most civilised nations; he keeps the Board of Directors faithfully informed of the state of the college, and to him they look chiefly for the success of the whole; he is always the ordinary professor of one of the faculties, but he gives fewer lessons or lectures than the other faculty professors if he finds it necessary.

ARTICLE 85.

He has the sole appointment of the Secretary of the College, and can discharge him when he finds it necessary; he has only to inform the Board of Directors of the appointment or discharge.

ARTICLE 86.

And, since it happens not unfrequently, that teachers in institutions for the instruction of youth, are dissatisfied from the very love they bear to their science, and the anxiety to teach it thoroughly, with the time allotted to them for the instruction in their branch; the teachers must, in such cases, abide by the decision of the Academic Board, made known to them by the President; but if the complaining teacher be a professor, he may appeal to the Board of Directors.

ARTICLE 87.

And should it happen that the President, in the opinion of the faculty professors, falls himself into such a mistake, as to his favorite science, they shall direct his attention to it or inform the Board of Directors of the college.

ARTICLE 88.

The President keeps himself informed as far as possible, of the character of the relations or friends of scholars, in order to regulate his permission of visiting.

ARTICLE 89.

No person can be appointed for the presidentship of the college who has not signally distinguished himself in the cause of letters or science; and the Board of Directors shall be obliged to propose a person to the Select Council for the Presidentship of the college, within a year, at the latest, after the decease, discharge, or resignation of the previous president.

ARTICLE 90.

There shall be a Vice-President of the college, who takes the place of the President in case of his sickness or other incapacity, or vacancy of the chair of the President.

ARTICLE 91.

He must be one of the ordinary or faculty professors, and he receives an additional salary, to which another addition is made when he is acting president for any length of time.

ARTICLE 92.

The police of the college is under his especial care.

ARTICLE 93.

In order to establish a regular organisation in the different branches of education, and to save time, by a well established plan of the whole instruction, whereby the instruction in one subject shall regularly prepare the scholar for the next; and that the whole instruction shall become a natural progression, from the moment the orphan enters the college, to that when

he leaves it, the instruction in the college is to be divided into five faculties.

ARTICLE 94.

Their names are: the faculty of mathematics, the faculty of history, the philosophical faculty, the philological faculty, and the faculty of arts.

ARTICLE 95.

The branches and sciences comprised under the mathematical faculty are:

Arithmetic,
Book-keeping,
Mathematics, pure and mixed, (including mechanics, statistics, hydraulics, &c., descriptive geometry, &c.),
Astronomy,
Navigation,
Mensuration,
Machine building and study of models.

The branches and sciences comprised under the historical faculty, are:

History,
Geography,
Ethnography,
Politics,
Natural Law,
Principles of English and American Law,
Legislation,
Civil Rights and Duties,
Commerce,
Statistics,
Explanation of and instruction in the occurrences of the day.

The branches and sciences comprised under the philosophical faculty, are:

Religion,
Ethics,
Logic and Philosophy of the mind,
Natural Philosophy,
Chemistry,
Mineralogy and Geology,
Physics,
Natural History,
Technology,
Knowledge of commodities,
Mining,
Agriculture.

The branches or sciences comprised under the philological faculty, are:

Reading,
Grammar,
Languages,
English Literature and that of other nations,
Rhetoric,
Debating,
Reciting or Declamation,
Exercise of the Memory.

The subjects comprised under the faculty of arts, are:

Writing,
Drawing, including,
    Landscape and figure drawing,
    Ornamental drawing,
    Geographical and topographical drawing,
    Architectural drawing,
    Machine drawing,
Architecture,

Perspective,
Singing and music,
Mechanical arts.

ARTICLE 96.

Gymnastics with swimming, gardening, and instruction in the art and science of education, are left under the immediate direction of the President, or shall be disposed of as the Academic Board shall see fit.

ARTICLE 97.

If any new branch of learning or instruction shall be introduced, it is the duty of the Academic Board to assign it to either of the above named faculties, or to leave it under the President's immediate direction.

ARTICLE 98.

A Faculty Professor, or ordinary professor, has the special superintendence over his respective faculty: it is, in the mathematical faculty, the professor of mathematics or of astronomy; in the faculty of history, the professor of history; in the faculty of philosophy, the professor of one of the branches belonging to this faculty, to be designated by the Board of Directors; in the faculty of philology, the professor of English literature and rhetoric, and in the faculty of arts as in the faculty of philosophy.

ARTICLE 99.

All Faculty Professors reside in the college as soon as practicable.

ARTICLE 100.

It is the duty of the Faculty Professors to instruct, and to promote the scientific and moral welfare of the college, not only with respect to the faculty over which they preside, but of the college in general, by all proper means in their power.

They shall be clothed therefore with all that authority, which the obtaining of so great an end requires, and the good government of the whole permits.

ARTICLE 101.

It is one of their chief duties to regulate and watch more particularly over the progressive instruction in their faculty; to suggest to the President such improvements as they may think best; to watch over the faithful instruction in all classes in their department, and to devise with the teachers of their respective faculties the best plan and distribution of subjects in the allotted hours, which they lay before the Academic Board.

ARTICLE 102.

They may hold meetings of the teachers in their faculty at any time for the above purposes, standing always under the general direction of the Academic Board and the President.

ARTICLE 103.

A Faculty Professor may be a teacher in any other faculty than his own.

ARTICLE 104.

No person can be appointed a Faculty Professor who has not distinguished himself in the cause of letters and science, or otherwise given substantial proof of his respective efficiency.

ARTICLE 105.

The Faculty Professors may, in matters of business, communicate directly with the Board of Directors or through the President, as they think best, but all other teachers and officers of the college, except those designated by the constitution or any additional law or regulation, will communicate with the Board of Directors through the President or a Faculty Professor.

ARTICLE 106.

The faculties shall be organised as soon as the college is fairly in operation.

ARTICLE 107.

As long as there is no Faculty Professor for a certain faculty, the faculty duties devolve upon the President, or one of the teachers interimistically appointed by the Academic Board, or, before this is constituted, by the President of the College.

ARTICLE 108.

There may be from time to time assistant professors appointed for certain subjects. They do not live in the college. And the Board of Directors may likewise appoint other teachers within the college, with the title of professors, if their distinction and merit in the cause of letters and science would require such mark of acknowledgment, though they are not ordinary or Faculty Professors.

ARTICLE 109.

The President of the College and the Faculty Professors form the Academic Board. They have the right to elect any other of the college teachers as members for one year of the Academic Board, but the number of the members thus chosen must not be above five.

ARTICLE 110.

The vote of the President of the College counts for two, if by counting it for one the votes are equally divided.

ARTICLE 111.

The Academic Board regulates the discipline and instruction under the general directions of the Board of Directors, it proposes improvements, allots the proper time to the various branches, proposes to the Board of Directors text-books, or the

direction to write such; their advice shall be duly weighed by the Board of Directors as to the appointment of Faculty Professors.

ARTICLE 112.

The Academic Board will determine what punishments may be inflicted by the teachers and assistants without special authorisation for the use of them.

ARTICLE 113.

If the Academic Board are unanimously agreed that a scholar is unfit to remain in the college, the Board of Directors shall dismiss him.

ARTICLE 114.

Whenever a teacher is to be appointed in the college, except a Faculty Professor, the Academic Board shall appoint one or more professors, (always including the respective faculty professor,) or teachers as a committee of examination, in order to examine any applicant for such vacant place, and if the committee shall express their belief in the fitness of such a person, the Board of Directors shall have the right to appoint him, but not otherwise.

ARTICLE 115.

There shall be a *competent* number of *teachers* and *assistants* for the instruction in the various departments, and the education of the scholars in general, with such duties and such salaries as the competent authorities shall direct.

ARTICLE 116.

The general rule in respect to their appointment, as well as that of any superior or inferior officer or *agent shall be that they receive adequate compensation for their services;* the college shall pay well and expect much. And *no person shall be employed in the college, who shall not be of tried skill in his or*

*her proper department, of established moral character, and in all cases persons shall be chosen on account of their merit and not through favor or intrigue.*

ARTICLE 117.

And it shall therefore be always a rule with the Board of Directors, that he who proposes a person to whatever employment in the college, shall distinctly state his or her merits, which in his opinion entitle him or her to such employment; and in cases in which the Select Council and Mayor of Philadelphia appoint on the proposition of the Board of Directors, the latter shall always distinctly state why they have made the respective choice.

ARTICLE 118.

No difference of religion for itself shall ever influence the choice of any person employed in the college, except in the one case, that it so happens that already half the number of all the teachers and professors are of one and the same sect. If this is the case the Board of Directors may consider the propriety of declining the appointment of the proposed person on the ground of religion only.

ARTICLE 119.

Any professor or teacher living in the college, shall have the right to let his children partake in the instruction of whatever kind afforded by the college.

ARTICLE 120.

No professor or teacher residing in the college, shall give any lectures or lessons for pecuniary remuneration to any other persons than to the orphans of Girard College, except with the consent of the Academic Board.

ARTICLE 121.

There shall be a college *library* containing books both for

the instruction of the professors and teachers and the scholars.

ARTICLE 122.

It shall have an annual revenue for the purchase of books.

ARTICLE 123.

*A room in the great college building, most suitable for the purpose, shall be set apart for the reception and preservation of the books and papers of the testator, and they shall be placed there by his executors, and carefully preserved therein.*

ARTICLE 124.

There shall be a Librarian who shall be a person either separately appointed for this station, or one of the Faculty Professors. In the latter case he receives an addition to his salary as Faculty Professor, provided his faculty has fairly gone into operation.

ARTICLE 125.

Archives shall be carefully kept of all documents, reports and statements, and any other information, written or printed, relating to the college, its progress and statistics, so that they will always furnish full and accurate information on the college and enable a proper person at any future period to give an exact and continuous account of the institution from its beginning.

ARTICLE 126.

The Librarian shall always be a person possessing a general acquaintance with American and English, French and German literature.

ARTICLE 127.

The librarian shall from time to time draw up a list of books, the purchase of which is proposed by the different Faculty

Professors and the President of the College, or by himself, and lay the same before the Academic Board, which will direct him, which of them are to be purchased; and he shall keep at all times a catalogue of the library, correctly and conveniently arranged, with the assistance of the secretary of the college, some of the elder scholars, or any other person or persons, directed to do so by the President of the College. He shall also keep a catalogue of the archives.

ARTICLE 128.

The Librarian shall have the keys of the rooms in which Mr. Girard's papers are kept, and of the archives, which stand under his peculiar direction.

ARTICLE 129.

A book shall be kept in which every person connected with the college may write the title of books which he proposes to be purchased. The name of the person who proposes the purchase of said work or works must be mentioned in the said book.

ARTICLE 130.

There shall be a Physician and Surgeon, or a Physician and a Surgeon, with assistants, (as the Board of Directors shall think fit), with such a salary as the Common and Select Councils of Philadelphia, and for such duties as the Board of Directors and the President of the College shall see fit.

ARTICLE 131.

The Physician shall reside in or near the college.

ARTICLE 132.

It shall be one of his duties always to pay particular attention to the sanitary state of the college, such as diet, ventilation, &c., and he shall inform the president of his observations.

ARTICLE 133.

He shall keep a regular Medical Journal of each of his patients.

ARTICLE 134.

The Physician shall examine each orphan to be admitted as to his physical qualifications for admission.

ARTICLE 135.

He shall, moreover, examine every orphan to be admitted whether he has been vaccinated, and if it has not been the case, he shall vaccinate the child, and if the child in question should have passed the age of puberty, and has been vaccinated before this period, he shall be vaccinated again; and any orphan passing the age of puberty in the college, shall be vaccinated again at a proper time after this period. And the physician is required to pay most particular attention to the virus of which he makes use, that it be taken from sound children of sound parents, so that no ruinous disease may be propagated by vaccination—a precaution to which it is particularly necessary to be attentive in an orphan asylum, several of the young inmates of which bring scrophulous and syphilitic dispositions with them.

ARTICLE 136.

The Physician of the college may be also a teacher in the college.

ARTICLE 137.

There shall be an Apothecary of the college, who shall keep and make the necessary medicines, prescribed by the Physician, and shall assist the professor of chemistry in the teaching of experimental chemistry. He must be always, therefore, a person who knows his art scientifically and practically.

ARTICLE 138.

The laboratories, both for the Apothecary and the lectures on chemistry shall be under his especial superintendence.

ARTICLE 139.

As long as any person employed in the college lives there, he or she shall have medicine gratis from the college apothecary.

ARTICLE 140.

The apothecary may be also a teacher in other branches.

ARTICLE 141.

There shall be, in a proper place of the college grounds, an hospital, under the special care of the physician and the necessary attendants.

ARTICLE 142.

The sick orphans shall be instructed or occupied according to their state of health.

ARTICLE 143.

Those services in the hospital which may be well performed by scholars of a proper age, and which would not interfere with their studies, nor be improper or dangerous for them, shall be performed by orphans of the age of from fourteen to eighteen years, since such services will strengthen their mutual affection, be an effectual means in their moral education, supply, in a degree, those family ties of which they are deprived, and teach them much that may be of great service in after life.

ARTICLE 144.

If the disease of an individual in the college is of such a character, that his remaining in the hospital would be dangerous to

others, or that the necessary care or treatment cannot be afforded in the college hospital, he shall be removed to another hospital of the city of Philadelphia.

ARTICLE 145.

The Board of Directors shall appoint, with the advice of the Physician, a dentist, who shall carefully inspect the teeth of all the scholars once every three months, and perform such operations as he and the Physician of the college, shall find necessary.

ARTICLE 146.

There shall be a Steward of the College, to whose special care all the material department of the college is intrusted. He superintends the linen, clothing, viands, the kitchen and bakery, dining rooms, dormitories, washing rooms, &c. He pays attention to the injury which may be done to the buildings, walls, trees, turfs, &c., and informs the President of it; he keeps the college accounts, and performs such other duties as the competent authority may direct.

ARTICLE 147.

The Steward shall live in the college.

ARTICLE 148.

There shall be a Secretary of the College. He does every thing proper for an officer of this kind, and directed to do so by the President. He keeps the statistics of the college, enters the different notes made by the teachers in the class books, in the great book of conduct of the scholars, corresponds for the President, makes out the tables which accompany the annual reports of the President of the college; and he may be directed to assist the Steward in keeping his accounts.

ARTICLE 149.

If the President thinks fit, he may be employed as a teacher, in case his other occupation does not fill out the time for which he has engaged to work.

ARTICLE 150.

He shall live in the college.

ARTICLE 151.

When the college is fairly in operation, there shall be a Conservator, whose duty it shall be to take care of the astronomical instruments, the philosophical apparatus, and the collection of models.

ARTICLE 152.

The Conservator shall be a man practically acquainted with mechanics, philosophical and astronomical instruments. He shall assist the professor of astronomy in his observations, shall live in the college, and may be employed as a teacher.

ARTICLE 153.

There shall be a College Gardener, who shall take care of the garden, cultivate it, and teach the scholars to do so, according to directions of proper authorities; he shall be a man who understands his art thoroughly, and is acquainted with botany.

ARTICLE 154.

There shall be a Matron; she shall have the care of the children under ten years old.

ARTICLE 155.

She shall also instruct, according to directions of the President, and Faculty Professors.

ARTICLE 156.

No child shall remain under the care of the Matron after it is ten years old.

ARTICLE 157.

Instruction is given in Girard College in three great divisions, called the preparatory school, the common school, and the high-school.

ARTICLE 158.

In the preparatory school, boys are instructed from six years to about ten or twelve years of age; in the common schools, from ten or twelve years to about fourteen or sixteen; and in the high-school, from fourteen or sixteen to eighteen.

ARTICLE 159.

The chief subjects in the preparatory school are: spelling, reading, writing, drawing, grammatical exercises, intellectual and written arithmetic, genometrical exercises, the art of speaking correctly and coherently; biographical, ethnographical and historical relations connected with geography; reading extracts of the Bible, (of ethical or historical character); morals, (for which the biographies of noted individuals shall be much used), and religion, and a continual explanation of things that surrounds us, according to the capacity of the children.

ARTICLE 160.

The study of Latin will be begun in the preparatory school, with those scholars, whose capacity and industry may warrant and merit it.

ARTICLE 161.

The chief subjects of the common school are: arithmetic;

geometry; algebra; drawing; book-keeping; grammatical exercises; speaking well and freely; geography; ethonography; history; elements of natural philosophy, (mechanics, astronomy, physics); duties of the citizen; explanation of our constitution; morals and religion; French and Latin.

ARTICLE 162.

The rest of the subjects mentioned in previous articles, and the continuation of those just mentioned, in article one hundred and sixty-one, shall be taught in the high-school, according to the merits and capacities of the scholars, so that various divisions may be formed for some subjects, to instruct the scholars more especially according to the future occupation which they have chosen, with the advice and consent of their teachers and the president. This latter provision has reference, chiefly, to the two highest classes of the high-school.

ARTICLE 163.

Only the most meritorious scholars shall be allowed to remain to their eighteenth year; and those of them who wish to become teachers, shall be employed as such if deserving and wanted, before their eighteenth year, and, after it, for remuneration, in order to afford them an opportunity of learning the art of teaching, and that the college may reap the advantage of the education it has given.

ARTICLE 164.

Scholars who deserve it, may remain for one or two, or four years, in the high-school.

ARTICLE 165.

These three schools consist of four classes each, so that a scholar, with ordinary talents and good application, may pass through each within a year.

ARTICLE 166.

Each class is divided into sections, if it contains more than thirty scholars. These sections shall be made according to the acquirements of the scholars.

ARTICLE 167.

The instruction in each class consists of half-yearly courses.

ARTICLE 168.

No scholar can pass from one class into another, without having shown, by examination, that he is fit for the next higher class. The opinion of the teacher of his class, shall have, however, due weight as to his promotion.

ARTICLE 169.

These examinations shall take place every half-year, and shall be made by the teachers of the class in which the respective scholars are, and the teachers of the next higher class.

ARTICLE 170.

If a scholar is unfit to pass into a higher class after having remained for four half-yearly terms in the same class, he is to be dismissed; because his unfitness would prevent other orphans from enjoying the benefits of the college. Nor shall he be allowed to remain a second time longer than for three half-yearly courses in the same class.

ARTICLE 171.

If a scholar of the common and high schools is fit to pass into a higher class, except in one subject (from which however mathematics are excepted) he may pass into the higher class, and remain for that one subject in the lower one, if this can conveniently be done, and if there is sufficient ground

to hope that he will exert himself especially by private study in this subject.

ARTICLE 172.

The President of the College and one member of the Board of Directors are present at the examination, which may entitle a scholar to pass from the common school to the high-school, and the President and professors of the faculties, together with that member of the Board of Directors, decide whether a scholar shall pass into the high-school.

ARTICLE 173.

The winter term of the college consists of September, October, November, December, January and part of February; the summer term consists of part of February, March, April, May, June and July. During the month of August are vacations.

ARTICLE 174.

There shall be such other vacations as the Board of Directors shall think proper.

ARTICLE 175.

There shall be festivals celebrated in the college, such as the fourth of July, Washington's birth day, the birth day of Stephen Girard (being the 24th of May), Commencement, or autumnal or vernal festivals, new year, or such others as shall be found proper by the Academic Board.

ARTICLE 176.

For those scholars who leave the college without passing into the high-school, an evening school shall be established in the city of Philadelphia, where they may receive instruction in the necessary sciences for two years longer; and proper provisions shall be made in their indentures, that they can enjoy this instruction.

ARTICLE 177.

The evening school stands likewise under the superintendence of the President of the College. It forms part of the college.

ARTICLE 178.

There may be lectures delivered at some future time, by the professors or teachers of the college, in Philadelphia, for deserving individuals who have been scholars in the college.

ARTICLE 179.

And as according to the will of Mr. Stephen Girard, orphans may be bound to farmers, and as they cannot well receive any instruction especially preparing them for this occupation before they have some practical knowledge of it, the Board of Directors and President of the College shall consider the propriety of allowing such of these orphans as shall merit it, to return to the college after they have acquired some practical knowledge, to be farther instructed in those branches which are most useful to them, as chemistry, botany, the science of farming, &c.; and they shall have a right to make arrangements accordingly.

ARTICLE 180.

There is an Ordinary Teacher appointed for each class, who has the more especial superintendence over it.

ARTICLE 181.

He selects the most deserving scholars to assist him in various ways.

ARTICLE 182.

The ordinary teacher of each class has the class-book in which he notes down, every week, the conduct and progress in each branch of each orphan, according to his own knowledge and the communications of the other teachers.

ARTICLE 183.

Every teacher has his journal, in which he notes down the same according to given forms, after each lesson.

ARTICLE 184.

All scholars of the common and high schools are to be divided into portions, called *squads*, consisting of from eight to ten individuals. One scholar of the high-school superintends each squad as monitor, and another as second monitor.

ARTICLE 185.

They study together out of the classes, eat and sleep together. The monitor, or in his place the submonitor, assists the members of his squad in their studies, and has the special superintendence over them out of the classes, for which purpose he must be obeyed by his squad.

ARTICLE 186.

Any scholar who shall insult, by words or gesture, a monitor, shall be punished. He owes obedience to the authority of the monitor, and may complain after having obeyed.

ARTICLE 187.

A summer gymnasium in the open air, a winter gymnasium in a spacious building of four walls and roofed, and a swimming school, each with the necessary apparatus, shall be established.

ARTICLE 188.

As the scholars can make use of the swimming school at certain hours only, and as it can be made use of by others without inconvenience to the college, the Board of Directors may make arrangements, that the swimming school can also be used by others, not belonging to the college, if they think proper.

ARTICLE 189.

No person whatever shall appear in the swimming school without swimming drawers.

ARTICLE 190.

An astronomical observatory with the necessary instruments and apparatus shall be built and established; and the income derived from astronomical publications shall be used for part of the support of it, after the author has been sufficiently compensated.

ARTICLE 191.

A collection of architectural, machine and other models, shall be made as soon as possible.

ARTICLE 192.

The college shall be provided with a philosophical apparatus, and necessary instruments, to teach the applied mathematics, navigation, mensuration, &c.

ARTICLE 193.

Casts and prints for the use of drawing shall be purchased.

ARTICLE 194.

A collection of specimens of commodities and manufactured articles, for the knowledge of commodities, is to be made.

ARTICLE 195.

A collection of minerals, and any other objects for the study of natural history, found necessary or desirable for the instruction of the scholars, shall be made in proper time.

ARTICLE 196.

The college shall possess a small organ and a piano, or pianos or other instruments necessary for the instruction in singing.

ARTICLE 197.

As soon as practicable, a printing establishment shall be founded by the college, for the printing of its standard books for its own use, and that of the public, and any other publication which the Board of Directors on the recommendation of the Academic Board may direct to be printed; in order to issue cheap and correct editions of works valuable in education.

ARTICLE 198.

There shall be a stamp or engraving on the title page of every publication issued from the college press, representing the same devise, scroll &c. with the college seal.

ARTICLE 199.

The college shall have its seal, to be used for all purposes that seals of similar establishments are necessarily or customarily used.

ARTICLE 200.

The seal shall represent the portrait of the founder of this college, in profile, with the following scroll around it:

KNOWLEDGE PERSEVERANCE TRUTH,

and in a segment, under the portrait, shall stand the letters:

MDCCCXXXIII.,

indicating the year when the corner stone of this monument of munificent charity was laid.

ARTICLE 201.

Neither the president, professors, or any other teacher or person employed in the college, shall be allowed to make use of a scholar for any private purpose; but the scholars may be directed by the president, or any other person authorized by him, to do such services for the college as will not interfere with their study and education, or disagree in general with their situation.

ARTICLE 202.

The chief means of discipline shall be constant and unremitted superintendence day and night; cleanliness in every part of the establishment, and neatness about the person of the scholars; strict observance of all laws, and a scrupulous example of all persons employed in the college; order; the confidence of the teachers; rewards and punishments, and the promise of assistance of the college after the scholar has left it.

ARTICLE 203.

It shall be the duty of every professor, assistant professor, teacher, or any other person employed in the college, who is knowing to any violation of the college rules and regulations, or to any irregularity, neglect or vice, of which a scholar has rendered himself guilty, to report the same without delay to the president or vice-president, and to cause on no occasion whatever, any scholar to believe that any law or regulation has been made except for his welfare.

ARTICLE 204.

All scholars shall be divided into three moral classes, or more, if the Academic Board shall think it necessary.

ARTICLE 205.

Scholars who belong to the best moral class only shall be fit subjects for first monitors.

ARTICLE 206.

No scholar of the lowest moral class shall be able to receive a prize.

ARTICLE 207.

The prizes awarded in presence of all scholars, teachers, and professors, of members of the Board of Directors, official

visiters, and such other persons as may be invited, may consist in merely mentioning the name of the scholar who obtained it, or in accompanying it by books, instruments, prints or other subjects useful to the receiver and not of a perishable nature, or in any other way the Directors shall deem proper.

ARTICLE 208.

Some of the highest prizes in the high-school may receive distinct names, for the better indication of the merit of the scholar who has obtained it.

ARTICLE 209.

The confidence of the teachers, shown by the appointment to various services, such as assisting in instruction, teaching in the gymnasium assisting in the laboratory, in the observatory, the library, in keeping superintendence during walks, &c., the participation in extra lessons, the appointment as monitors and submonitors, &c., the entry in the class book, and the entry in the great book of conduct, shall be other rewards.

ARTICLE 210.

Better food shall never be a reward, but it may be a punishment not to participate in a better fare on festival days.

ARTICLE 211.

Nor shall study ever be made a punishment, though a scholar shall be held to learn his lesson whilst others have time for recreation, if he has neglected it; but any other neglect or misconduct shall not be punished by extra lessons, because it shall be constantly impressed upon the minds of the scholars, that study is a benefit and reward for them.

ARTICLE 212.

Withholding of the common fare, and allowing bread and

water only, shall be allowed in cases, in which it is necessary to bend, by physical means, the obstinate resistance of a scholar, after mild means have proved fruitless.

ARTICLE 213.

There shall be a quarterly or half-yearly distribution of certificates, indicating the conduct, and progress in each science and art of the respective scholar; and from these certificates, as well as according to a final examination, a general testimonial shall be made out, when the scholar leaves the college.

ARTICLE 214.

These testimonials awarded by the Academic Board, shall bear a number, I., II., III., or IV; I. signifying the best, and IV., the worst. To Number I. the words, *with distinction*, may be added, if the conduct of the scholar has been irreproachable in every respect.

ARTICLE 215.

The college promises to assist by peculiar recommendation, and other means at its disposal, those scholars who leave the college with No. I., and especially those with Number I. with distinction. The committee of indenture will obtain the best places and situations for them.

ARTICLE 216.

No degree, devolving upon a scholar in consequence of the time only which he has spent in the college, shall ever be conferred upon a scholar in the college.

ARTICLE 217.

Chief punishments shall be private reprimand by the Ordinary Teacher of the class, by the Professor of the Faculty, by the President; reprimand before the meeting of teachers and professors; unfitness for rewards; limitation of liberty, and the

confidence of teachers; imposition of a long silence; reduction in the quality of food; farther the entry in the class-book, the entry in the great book of punishment, and expulsion.

ARTICLE 218.

The Academic Board will settle with the confirmation of the Board of Directors, what knowledge and moral conduct are requisite in order to give to a scholar a claim to No. I., with distinction, No. I., and No. II. No. III., shall be given if the scholar is unfit for No. I. and II., and No. IV. shall be awarded, if, to what would constitute No. III., a very deficient moral conduct must be added.

ARTICLE 219.

There shall be no corporal punishment, *i. e.* beating, in the common or high schools, but in the preparatory schools it may be inflicted upon such individuals as the President, upon a report of their teacher, shall designate in general as requiring it upon occasions, since orphans at times will enter that division, whose education has been much neglected, and to whom the denial of this corrective means, merely in order to follow a theory, would be a cruelty.

ARTICLE 220.

The President of the College shall again declare such a child no longer to be subject to corporal punishment, as soon as the child's conduct warrants it.

ARTICLE 221.

The Academic Board will determine the kind and limit of such corporal punishment.

ARTICLE 222.

Solitary imprisonment, without occupation, is a punishment of bad and serious effect with boys, who are not in general of a vicious character, which, before any other attempt of correc-

tion can be made, has to be broken; it shall therefore not be used.

ARTICLE 223.

No orphan shall ever be imprisoned in a dark room or cell, and never beyond a reasonable time.

ARTICLE 224.

The temporary confinement in a light room, of a child in the preparatory school, is not called imprisonment. It is one of the mildest and best disciplinary means with most young children in a fit of passion or obstinacy.

ARTICLE 225.

In the preparatory school a medal, or any other mark, may be used for temporary reward, but it shall never be worn as a badge, but shall be merely in the temporary possession of the rewarded child.

ARTICLE 226.

Supper shall always be given nearly two hours before going to bed.

ARTICLE 227.

No scientific instruction proper, shall be given within a full hour after dinner; the contrary leads to vice.

ARTICLE 228.

There shall be one or more hours per week, appointed for conversation on topics which have been taught during the week, the answering of questions, &c. and it will be well to unite for this purpose two classes.

ARTICLE 229.

The scholars of the common and high schools shall sleep in well ventilated and well lighted dormitories, from forty to

fifty in one room, with one or two teachers or tutors among them. They shall sleep on iron cods, and hard bedding.

ARTICLE 230.

There shall be an annual public examination, for which numerous invitations shall be given, and during which the persons present shall have the right of asking any questions, after the teacher or professor has stated the course he has pursued with his class during the last half year.

ARTICLE 231.

The scholars of the high-school shall keep a journal.

ARTICLE 232.

The scholars shall be led on Sunday forenoon to church, in divisions according to the various sects in which they have been born, or which may have been designated by their relatives. Especial care shall be taken that such ministers are chosen for this purpose, as are known for giving to their sermons a moral and instructive character, rather than a dogmatical or polemical.

ARTICLE 233.

And if there is not a sufficient number of a certain sect to send them to church with a teacher, some respectable family or families shall be requested to allow the said orphans to visit church with them.

ARTICLE 234.

Professors and teachers will take especial care to prevent any disputes on the respective merits of the various sects, among the scholars, and assiduously give a direction to such conversations or disputes, as will be beneficial to the scholars in respect to morals and religion generally.

ARTICLE 235.

Every Sunday afternoon a religious and moral discourse shall be delivered in the college to the scholars, by one of the teachers or professors, in such manner as the Academic Board shall direct.

ARTICLE 236.

The Committee of Indenture shall bind out the respective scholars *according to their capacities and acquirements, respectively; consulting, as far as prudence shall justify it, the inclinations of the several scholars as to the occupation, art or trade to be learned.*

ARTICLE 237.

The use of tobacco, or any ardent spirit, is prohibited to every scholar, except it be administered as medicine.

ARTICLE 238.

No playing at cards is allowed to the orphans. Chess and drafts are permitted, and any other game the president may allow; but it must never be played for any wager whatever, not even for eatables, or the performance of certain services.

ARTICLE 239.

The scholars are prohibited from forming any association for any purpose whatever, without the special permission of the president. They are not allowed to publish or cause to be published, any thing in a paper, periodical or any other work or pamphlet, by itself, without special permission of the president.

ARTICLE 240.

A scholar may make complaint to the Ordinary of his class, a Faculty Professor, or the President, but he forfeits the right of complaining, if he has not first obeyed in doing that which is required of him.

ARTICLE 241.

No scholar has a right to complain to any other person belonging to the college or its government and administration, than to the teachers, professors and President of the College.

ARTICLE 242.

If a scholar injures seriously any apparatus or utensils belonging to the college, especially if it is from great neglect, or wantonness, he shall, besides the immediate punishment inflicted upon him, be made to repair the damage as far as possible after he has left the college; and if the damage done would probably far surmount his means for a long time after he has left the college, a sum thought proper by the Academic Board shall be fixed upon in lieu of it.

ARTICLE 243.

An accurate account shall be kept as to these injuries, but in the final settlement a partial remission may take place on account of a very good character sustained in the college.

ARTICLE 244.

No scholar shall appear in the class-rooms or other places assigned for study, but decently dressed.

ARTICLE 245.

No scholar shall exchange his articles of dress, or any thing given to him especially.

ARTICLE 246.

General cleanliness requires that no water, or any thing else be thrown any where except in the places assigned for it.

ARTICLE 247.

*On the application for admission, an accurate statement shall be taken in a book prepared for the purpose, of the name, birth-place, age, health, condition as to relatives, and other particulars useful to be known of each orphan.*

ARTICLE 248.

*Those orphans, for whose admission application shall be first made, shall be first introduced, all other things concurring—and at all future times, priority of application shall entitle the applicant to preference in admission, all other things concurring; but if there shall be at any time, more applicants than vacancies, and the applying orphans shall have been born in different places, a preference shall be given—first, to orphans born in the city of Philadelphia; second'y, to those born in any other part of Pennsylvania; thirdly, to those born in the city of New York; and, lastly, to those born in the city of New Orleans.*

ARTICLE 249.

The orphans must always be sent to Philadelphia free of expense to the college.

ARTICLE 250.

The Board of Admission shall satisfy itself as to the fitness for

admission of orphans at a distance from Philadelphia, as far as possible, by certificates of proper authorities.

ARTICLE 251.

*If at the close of any year, the income of the fund devoted to the purposes of the said college, shall be more than sufficient for the maintenance of the institution during the year, then the balance of the said income, after defraying such maintenance, shall be forthwith invested in good securities, thereafter to be and remain a part of the capital; but, in no event, shall any part of the said capital be sold, disposed of or pledged, to meet the current expenses of the said institution, to which* the interest, income and dividends thereof are exclusively devoted.

ARTICLE 252.

Should, by unforeseen circumstances, the revenues of the college be materially, but temporarily diminished, a saving shall be effected by a diminution of the number of orphans to be received, rather than by changing materially the physical or intellectual education of those already in the college.

ARTICLE 253.

There shall be a book kept, besides the one provided for in article two hundred and forty-seven, in which there shall be regularly noted down, of each orphan, the time of his birth, place of his birth, whether he has sisters and brothers, the name and birth-place of parents, when the father died, or when both parents died, religion of the parents, that of himself, the day of reception into the college, how many days he has been sick in the year, his annual progress in knowledge, how long he remained in each class, what prizes he obtained, how often he suffered one of the greater punishments, and any other

matter of interest in regard to the character of the orphan or the statistics of the college.

ARTICLE 254.

As it is desirable that the college should know what becomes of its former scholars, they shall be desired to give, from time to time, or when any thing important happens to them, information of themselves; and gratitude will induce them to comply with this wish, whilst it will have, at the same time, a good moral effect upon them.

ARTICLE 255.

These notices shall be added in extracts to the accounts of the former scholars.

ARTICLE 256.

When an orphan is received, the President shall acquaint him with all laws and regulations concerning him, and impress upon his mind, that malconduct, as well as mere negligence in study, will cause his speedy expulsion.

ARTICLE 257.

The scholars shall always be kept well informed respecting the laws concerning them, and the clear knowledge of them and their operation, shall be made a chief means for their political education.

ARTICLE 258.

The teachers shall never allow, neither to themselves or to any scholar, any disregard of the college laws, under whatever pretence.

ARTICLE 259.

The laws and regulations which more particularly relate to the scholars themselves, shall be printed, or clearly written, and hung up in conspicuous places.

ARTICLE 260.

There shall be fire-engines, and the elder boys shall be trained to manage the engines in case of necessity.

ARTICLE 261.

*The college shall be sufficiently spacious for the residence and accommodation of at least three hundred scholars, and the requisite teachers or other persons necessary in an institution of this kind.*

ARTICLE 262.

And the buildings shall be built on such a plan, that others may be added, from time to time, with the increase of the number of orphans and of teachers, following the general plan of construction and location.

ARTICLE 263.

*Each of the outer-buildings shall be, as far as practicable, devoted to a distinct purpose.*

ARTICLE 264.

*In one or more of these buildings, the executors of the will shall place the founder's plate and furniture, of every sort, where they may be most useful.*

ARTICLE 265.

*The college shall be supplied with plain and suitable furniture and books, philosophical and experimental instruments and apparatus, with maps, and all the other matters needful to carry into execution the general design of the founder.*

ARTICLE 266.

*The institution shall be organised as soon as practicable.*

ARTICLE 267.

The constitution may gradually go into operation as the progress of the college may warrant, and the Board of Trustees, as now constituted, or the Board of Directors may find necessary; but a term shall be fixed by the Corporation of Philadelphia, when, at the latest, the whole constitution must go into operation.

ARTICLE 268.

The legislature of Pennsylvania shall be petitioned to pass such laws as will be necessary to carry the will of Mr. Stephen Girard, and this constitution, into operation.

ARTICLE 269.

No change shall ever be made in this constitution, except by the sovereign authority thereof.

# PART V.

A SERIES OF

## RULES AND REGULATIONS

FOR

## GIRARD COLLEGE.

1.

The scholars owe strict obedience and respect to the officers, teachers, professors, and any other person employed for their education.

2.

The formal refusal of obedience of a scholar of the common or high schools if persisted in after a warning is given, causes expulsion from the college.

3.

Scholars are not allowed to have any money about them. If they receive any, they must give it to the steward, who will keep an account of it. They may spend it with the permission of the President.

4.

Scholars are not allowed to bring any thing into the college, be it books, prints, eatables, clothes of whatever kind, without depositing it with the porter, and getting previous permission from the inspector of the day, to take it into the college.

5.

The days on which scholars may visit, are Sunday and Wednesday afternoon. The general rule shall be, that the scholars shall not visit often, and the permission to visit shall never be given otherwise than by way of reward for good conduct.

6.

The President gives permission to go out only, when the Ordinary of the respective class has previously allowed to apply to the President, in which he must be warranted by the behavior and study of the scholars.

7.

The porter receives a list of all who have obtained permission to go out, and each scholar, on his return, must write down his name in a book, kept for this purpose by the porter.

8.

If the president finds necessary, a printed paper is given to the scholar who goes out, which the person to whom he pays a visit must sign, and on which it must be stated from what time to what time, the scholar has been with him.

9.

If a scholar returns into the college ten minutes after the time allowed to him, and he cannot sufficiently account for his neglect, he is punished; twenty minutes after the time is punished more severely; half an hour after the time deprives him of the right to apply for permission to go out within two months.

10.

The President fixes a day when visiters may be received

in the college; yet in each case special application must be made to him, or the officer in his place.

11.

No scholar shall, under whatever pretence, perform any task or labor assigned to another, or answer for him at any roll call. He that has induced any of his fellow-scholars to do so, and he that does so, are equally punishable.

12.

During the hours for private study, all kind of gymnastic game, all noise, and every thing that would disturb the attention of the others, is strictly prohibited.

13.

No scholar is permitted to go into the dormitories or dining rooms except when the order of the day requires it, or if he is especially authorised. The contrary shall be punished.

14.

No scholar can put questions to the teachers during lessons, without having previously attracted his attention by lifting up his hand and obtained permission from the teacher. But if the number of scholars of a certain class is so small, or if the scholars are of an age that this is not required, the teacher may dispense with this disciplinary measure.

15.

During meals, conversation with the nearest neighbors in a moderate tone is allowed as long as the sign for general silence is not given, after which none is allowed to speak, and the various wants are indicated by signs. The superintendent at dinner gives this sign when he finds reason for it.

16.

All exchanging of dishes, except by authorized persons is strictly prohibited.

17.

Any scholar who uses bad and indecent language, after he has twice been punished for it, shall be dismissed.

18.

Scholars owe to each other that behavior and regard which the members of good and moral society always owe to each other, and by which they manifest both a decent regard for others, and a proper self-respect.

19.

Any combination or agreement of scholars to hold no social or friendly intercourse with another, shall be severely reprimanded and punished. They are all members of one family, and ought to behave toward each other accordingly.

20.

Any scholar who shall wantonly damage any thing whatever belonging to the college, shall be punished according to the nature of the offence, and besides be held to compensate, by some general service, the community against which he has offended.

21.

Any scholar who shall wantonly and purposely destroy, or knowingly sell any thing belonging to the college, shall be dismissed, and if there are peculiar and mitigating circumstances, it shall be for the Board of Directors alone to decide, whether the scholar may nevertheless remain in the college.

22.

The monitors of the squads bear a blue badge round the left arm. They shall be invested with a necessary degree of authority in their squad.

23.

They are provided with a book to note down every thing

which they shall have to report to the inspector of the day.

24.

The monitor is the proper speaker for his squad, as to complaints and wishes, respecting domestic arrangements.

25.

The monitors give paper, pens, &c,. to their squads, and the class monitors to the same in the classes, and keep account of these things.

26.

To them the care of instruments, engravings, &c., while used in the class, is particularly entrusted.

27.

No map, instrument, model, cast, apparatus or specimen of a natural or artificial product, shall be touched by a scholar in or out of the class, without permission of the teacher.

28.

Monitors superintend the private study of their squads, and assist the younger members.

29.

To be cleanly and neat is one of the first duties of every scholar.

30.

Every omission of cleanliness is punishable. Every scholar, in the evening as well as in the morning, daily washes his hands, face, neck and chest, if health permits; combs his head, and cleans his teeth, for which purpose tooth-brushes will be furnished to every orphan; and twice a week every scholar shall wash his feet, or the whole body if possible.

31.

In summer every scholar bathes at least twice a week, if weather and health permits.

32.

Every orphan changes his day linen twice a week (if circumstances require no more frequent changes), and once a week his night shirt.

33.

Scholars shall have their hair trimmed close, except from the crown to the forehead, which shall be neatly trimmed and dressed.

34.

The orphans brush their own clothes, but do not clean their shoes or boots.

35.

Scholars shall always appear in decent dress, and never allow themselves to appear otherwise in the classes or study-rooms.

36.

It is desirable for every man to be able to help himself in the various occurrences of life, and opportunities shall be seized upon to teach the orphans all these trifles, which though it is no great acquirement if a person knows how to perform them, may become in the course of life very vexatious, if we have not learned how to overcome them. But the orphans shall not, as a regular matter, mend their clothes, assist in the kitchen, &c., because the loss of time for their study is much greater than the profit derived from their services, and it would be against the character of the institution which Mr. Stephen Girard was desirous of giving to the college.

37.

The orphans however may be directed to make each his own bed, and to do any other service which the President shall find necessary.

38.

Every orphan will have a kind of press, bureau or box without a key.

39.

The monitors and second monitors have to see that these bureaux or boxes are kept in order.

40.

The love of parents, sisters and brothers, is a most effectual means of moral cultivation and moral support in after life, and the anticipating joy of seeing them during vacation is a very effective means in education. The scholars shall, therefore, be allowed to correspond, under certain restrictions, with their relatives, and to visit them during vacations, if the President of the college holds himself satisfied that the relations are respectable people, and that the respective scholars will spend the vacation under good superintendence, and if they ought not to remain in the college, in order to study more particularly certain branches, in which they are backward.

41.

No scholar leaves the college during vacations without certain tasks in the various branches of instruction being assigned to him, which he must have performed on his return; otherwise he will be punished.

42.

An orphan must return to the college on the appointed day; if sickness prevents him, his relations must send this information, attested by a physician, to the President. A delay of

return, without sufficient reason, may be punished with expulsion from the college.

43.

The Academic Board devise a plan of instruction and occupation during vacations for those who remain at home.

44.

All teachers will studiously imprint upon the minds of the scholars, and carefully cultivate, not only the principles of morals, but also the principles of study and knowledge. So that the scholars will be animated by a true love of knowledge and science, and receive in the college that instruction, which in future, may serve them as a guide in the farther pursuit of each branch.

45.

It is, for this reason, of the greatest importance, constantly to guide their private study, and to model all instruction with a constant regard to it.

The lessons ought to consist in a great degree of directions as to private study, for which, in the division of the day into class and private study, sufficient time must be left. But the scholars must always give account of their private study, and the performances made during the same, must be carefully corrected.

46.

It is highly desirable, therefore, that *courses* should be drawn up for each class, after the fashion of the French *cours*, used in their higher schools, as the *Ecole Polytechnique*, by which the scholars receive the best means of preparation for and repetition of each lesson. Such *courses* will gradually be drawn up and published for every class, and all branches of sciences, for which no book, precisely answering the demands of the college, does already exist.

47.

In the annual report of the President of the College, a precise statement of the extent to which each science is taught in each class, will be published for the next year; and the course to be pursued in each of these divisions may be indicated by stating the chief problems in the various branches.

48.

Great as the moral influence of polite literature is, with every nation and individual, it is a means of refinement which must be especially cherished in the education of orphans, who are deprived of many means, ties and relations, that cultivate and refine the mind of others, living in their families. English literature will be therefore made with all, and the literature of the most distinguished other nations, with those who merit it, an important subject of study, and especial care will be taken that they receive in the college such instruction and direction respecting the whole field of literature, as to be enabled to continue their reading and study after they have left the college, for the improvement and true cultivation of their mind and heart.

49.

It will be well always to leave some branches of instruction to the choice of the scholars in the common and high schools.

50.

The fundamental and leading sciences through the whole College, are mathematics, history and natural science.*

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* Meaning thereby the application of mathematics to *cause* and *effect* in nature, and the knowledge obtained by farther reasoning upon *data* furnished by observation of nature. This is, I am aware, a meaning given to the expression, natural sciences, different from that in Herschel's Prelim. Discourse on the Study of Natural Philosophy, page 13, American edition; but Herschel's definition would apply to history, as well as philosophy of the mind.

51.

The method of instruction and of education must always be dependent upon the individuality of him who instructs and educates, and him who is to be educated. Nothing leads to results, more contrary to the true end of education than the blind pursuit of one specified and detailed method. Much liberty is therefore left to each teacher, to regulate his method with the advice of the president, and the respective faculty professors within certain limits, and upon certain general principles.

52.

These principles are that the scholar's own mental activity is the most desirable of all means of acquiring knowledge. The scholar will thus only learn according to his capacity, and learn the thing, not the name; and to obtain this latter end, it is of the greatest importance that the knowledge of the thing ought always to precede its sign. A scholar must not only know what a fraction is, but even know how to operate with it, before he is acquainted with the sign used to express a fraction. The evil consequences of a contrary course are more and more felt with every successive step which a scholar makes in a science, and even in after life. The same principle is to be applied to history. Names and chronology are of great importance in its study; but they are matter of memory, and must be treated as such, whilst one of the chief objects of the study of this science is the obtaining of a clear picture of the characters of individuals, bodies of men, and times.

53.

To arrive at this end, *i. e.* the obtaining of vivid conceptions of things, one of the most serviceable means is to teach to understand the past through the present, the distant through that which is near. In following this course we do but imitate that which every individual, every nation, and mankind itself fol-

lows where a new path is to be pursued. We always elevate ourselves from the special and concrete to the general and absolute. Instruction ought therefore to proceed in concentric circles of which the individual to be educated is the centre, extending wider and wider. Let ethics begin with the observation and practice of all the duties which the individual to be educated, has to perform; let him proceed to the observation of ethics in the biography of other individuals, and thus gradually elevate himself to the whole system of our obligations, duties, virtues and rights. Let geology begin with the nearest geological phenomena; teach the habits of distant animals, after previous observation of those which surround us; physical geography, by showing water divisions on the smallest scale, within the reach of personal inspection; historical characters, by beginning with political or other phenomena which are nearest to us, and even by biographies; the principles of arts, by observation of those which we see every day; natural philosophy, and even philosophy of the mind, by phenomena daily occurring. The younger the scholar, the more uncultivated his mind, and the less his capacity, the more necessary it is to start with the concrete; general principles remain with him lifeless words. The greater the capacity of the scholar, the easier it is to collect all he has learned, under general heads, and to arrange it according to certain principles.

54.

If the scholar has arrived at that stage in a certain science, in which the whole may be presented to him in a systematic view, "the general methods are preferable. Let us represent them in the simplest way, and we shall find that almost always they are also the easiest."*

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* Words of Laplace, in *Journal des Séances de l'Ecole Normale*, quoted in *Histoire de l'Ecole Polytechnique par A. Fourcy, Paris*, 1828.

55.

In mathematical instruction that method is to be used, by which the scholars are led to find the rules themselves, and to proceed from step to step by their own activity—a method appropriately called in German the *heuristic* method (the method of finding). The same method is to be applied as far as possible in other branches.

56.

If in mathematics the solution of a problem, or the problem itself, can be made clearer, and can be better brought home to the mind of the scholar, by a representation in space, than by mere analysis, the former method is always also to be made use of, though the general method pursued in a certain course may be the analytic one. Neither science in its strictest sense, nor clearness of conception, ought to suffer by any method.*

57.

The strictest order, and a military precision must be observed in every thing that relates to the internal discipline of the college, especially in respect to rising or going to bed, taking meals, going to, and returning from walks, &c. &c. Whenever silence is required, it must be absolute, and every contravention is punishable.

58.

All this is said however, without any prejudice to the freedom and ease of the scholar, which it is the duty of every person employed in the college, to promote as much as it is consistent with the well being of the whole institution.

59.

When the scholars are led out to take a walk, in different

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* I am warranted in this by the Ecole Polytechnique.

divisions, the teacher who leads them takes occasion to show them interesting objects, and they will be often led to establishments where they see the application of sciences which they have been taught.

60.

Ordinarily the scholars do not wear neck-kerchiefs. Want of health, or the inclemency of weather, may make of course an exception.

61.

The whole gymnastic department must be under the special superintendence of a professor or the President himself, because those persons who teach gymnastics professionally, are often individuals unacquainted with the whole range of gymnastics, and their progressive courses, as well as the true ends of education. It is therefore necessary that one of the professors, the President included, or of the teachers, be theoretically and practically acquainted with this branch of physical education.

62.

Those pupils who leave the college after they have passed through the two first classes of the high-school, but do not go through the two highest classes, will go through a course of pure and mixed mathematics, which acquaints them with the most important parts of those mathematical sciences which there is no time for them to study thoroughly, but which nevertheless are of great importance for practical life, such as curves, useful to architects, mensuration, statics, dynamics, hydrostatics, hydrodynamics, pneumatics, active and passive strength, &c., a range nearly contained in Gregory's Mathematics for Practical Men.*

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* London, 1825.

63.

One of the teachers is the inspector of the day. He watches more particularly over the general discipline during that day, and that the order of the house is strictly kept. He is present at the meals, and receives all reports of the monitors.

64.

ORDER OF THE DAY.

[The following regulations have reference to the common and high-schools only; the tender age of the scholars in the preparatory school requires greater care in details, and the President and Academic Board, will give from time to time, directions to their Matron and their other teachers respecting the best mode of their education and management.]

Rising { Summer at half past five o'clock;
Winter at six o'clock.

Washing in the washing-room.

Call of the roll.

Prayer, of all scholars assembled if convenient.

Private study.

Breakfast { Summer at seven o'clock;
Winter at half past seven.

Study at pleasure, and walks in the open air.

Lessons from eight o'clock to eleven o'clock, or noon.

At ten, the distribution of a piece of bread.

Five minutes recreation between each lesson of an hour.

Gymnastic exercises, or play, from 12 o'clock to half past twelve.

Washing before dinner.

Dinner at a quarter before one o'clock.

Walks or occupations at pleasure till two o'clock.

Lessons from three to four or five o'clock, except on Wednesdays and Saturdays.

Gardening, or swimming in summer, till six o'clock.

Private study until seven.
Supper at seven.
Private study to half past eight o'clock.
Washing.
Call of the roll.
Prayer.
Going to bed at nine, except those who have special permission of the President to remain up until ten o'clock; they study under superintendence during this time.
No one is allowed to speak in bed; monitors are punishable if they hear it without taking the proper means to stop it, or inform the teacher of it.
At a quarter past nine o'clock, the inspector of the day makes his round.
At half past ten he makes his second round.

65.

Wednesday afternoon is used for the instruction in gymnastics or visiting, or going out under a teacher.
In the evening study, care of cleanliness.

66.

Saturday afternoon, sometimes walking out or gymnastics, sometimes occupation at the choice of the scholars, under proper superintendence.
Study, care of cleanliness.

67.

Sunday morning, private study; prayer, followed by some remarks on moral and religious subjects.
Study at choice.
Divine service in church; recreation and study at choice.
Dinner, recreation, moral discourse, study, &c.
Visits may be made by the scholars during Sunday.

68.

Especial care is taken, that the scholars from an erroneous notion of the celebration of the Sabbath by abstinence from labor, are neither led to idleness or mental indolence, nor to a mere observance of outward form.

Study, the improvement of the mind, and its benign influence on our soul cannot be offensive to that very being who is the fountain of all knowledge; and he, that never felt the religious influence of sciences and study, (the most abstract, the least excepted,) has never served them in truth.

69.

At the appointment of each person to a subaltern station, such as porters, or any other, the President draws up, or has drawn up a concise statement of the duties, the performance of which is expected from him or her.

70.

Some teachers make journeys during vacations, on foot, or otherwise, with a number of scholars to parts of our country, most interesting by nature or industry. It is one of the greatest rewards in the college to be allowed to make such a journey.

71.

The Academic Board lays down the plan of these journies; the Board of Directors gives permission for it.

72.

The Secretary of the college will make out annual statistical tables and statements, in which, among other subjects, will be given the number of scholars newly received; how many died; how many were bound out; how many there are of the different ages, classified by years; how many in each class, classified by the states of their birth; how many prizes were obtained; how many punishments of a severer kind were resorted

to; how many expulsions took place; diseases classified by general divisions; how many days sickness occurred in the college; medicines chiefly used, and in what quantity; how many lessons were given in each branch of knowledge in each class, during each term; the number of teachers, consumption of the various provisions, &c. &c.

73.

It is necessary that the plan of an institution like Girard College should be so, that, though founded on firm principles, it may continually adapt itself to the wants of society and the state of knowledge of the age, as well as to the peculiar wants of its own pupils.

Nothing is therefore here definitely settled respecting the time which must be allotted to the instruction in each branch.

The Academic Board will make out, every half year, plans by which they settle how many hours and at what time they are to be allotted to each subject of instruction.

74.

The Board of Directors have also here the right of revision.

75.

Every Faculty Professor makes out a plan for the respective faculty over which he presides.

76.

According to the present state of sciences, a scholar who has been allowed to remain to his eighteenth year in the college, and is endowed, therefore, with fair talents, and has always well applied himself to study, ought to have made the following progress: in mathemitics he ought to be well acquainted with geometry, trigonometry, plain and spheric, the conic sections, curves, with algebra, analysis and the whole calcu-

lus of the finite, and the elements of infinitesimal calculus. He ought not only to know the chief problems, but he ought to operate with ease and readiness, to know their chief applications, and to be acquainted likewise with the use of the most important instruments. This knowledge of the applied mathematics, will of course vary according to the occupation which he has chosen for his future life, but none should leave the college at this age without a fair knowledge of the heavenly bodies and their revolutions.

In history he ought to be acquainted with the chief revolutions of human society, and the prominent agents in the same, the gradual progress of his own country and its institutions, and the characteristics of every nation in its various important periods, particularly of England; he ought to be well versed in chronology and have a fair knowledge of the history of inventions and discoveries, of commerce and agriculture. In politics he ought to know the principles and theory of civil government, the rights and duties of freemen, or political ethics, the constitution of his own country,—a knowledge of a range about equal to that of Judge Story's Abridgement of his own Commentaries on the American Constitution—and the chief differences of the constitutions of other countries; farther he ought to know the elements of political economy, and have a clear view of the organisation of nations and societies. The principles of law in general, and a brief view of English and American law, in particular, he must likewise know. He ought to be made acquainted with the chief differences of criminal law, trial and punishment of the various countries, as also with those of civil trial.

In techology he ought to have a fair knowledge of the chief principles, processes, also instruments and machines by which man conquers nature and subdues matter to his own purposes. His knowledge of natural history will be much regulated by the future occupation he has chosen, but he ought to have a general knowledge of the various kingdoms of nature.

Geology and technological botany will be serviceable to every one, and zoological descriptions lay open to us the wisdom of the Creator in a most impressive way, whilst the application of strict mathematics to crystals fill the scholar with a salutary scientific delight, which man always experiences when he first finds that strict science is applicable to the apparently playful creations of nature. The scholar ought to have a fair view and knowledge of mineralogy and geology.

In English literature he ought to be acquainted with the best parts of our best writers, with the nature and character of all their works, and the most important incidents in the lives of the authors and the influences of the time &c. under which they wrote, as also with a general history of the whole literature; he ought to write correctly and clearly, and be well acquainted with the organisation and the elements of our language; his pronunciation ought to be correct, and his language, in every way, free from vulgarities. In chemistry he ought to know the most important part of the science, to operate in the laboratory, and to be acquainted with its applications in trades. In mechanics and physics he must be more proficient if he chooses certain occupations in after life, but healways ought to be possessed of a fair knowledge of them, which will enable him to understand the causes of the many phenomena around him, according to the present state of science; in philosophy he ought to be acquainted with the phenomena of the mind, and their chief solutions that have been attempted, with logic, and also with the most important philosophical questions that have occupied mankind. He, moreover, should be acquainted with ethics in general, and all our obligations as citizens in particular. He ought not to enter life without a fair knowledge of that which might be called the *practice of liberty.*

In religion he ought to be acquainted with religious philosophy, the important truths of Christian religion, and a historical view of the various sects. In French he ought to speak fluently with a fair pronunciation, he ought to write it

correctly, and be acquainted with the chief authors of France. In Spanish he ought to be able to converse, to write it fairly and read it with ease. If he has learned German, he ought to read it with ease, and write exercises on easy subjects in it. In Latin he ought to translate and explain freely Tacitus and Horace, write correctly though it may not be elegantly, prose in it; but instead of letting him make Latin verses it is much better to make him converse in Latin; in Greek (if he studied it) he ought to translate and explain with ease any given part in Lucanus, Xenophon and Homer, and to write prose on easy subjects pretty correctly. He ought to relate fluently, concisely and agreeably in our vernacular tongue, to speak freely on a given subject and arrange his ideas on the same quick, so that he can represent them perspicuously.

He ought to be well acquainted with what constitutes truly good or beautiful public speaking. His memory ought to have been well exercised. He ought never to have been allowed to forget in the higher classes what he had acquired in arithmetic in the lower ones; he ought to know the principles of book-keeping, and in mechanical arts, he ought to know how to manage some of the most important tools, so that in after life he may be free from all *gaucherie;* he ought to write a fine hand, and to be thoroughly acquainted with drawing. He ought to be acquainted with the character of the different fine arts and the chief productions in each.

Though the importance of the various divisions of this art differs according to the occupation which the scholar chooses for after life, yet every one ought to know well figure and landscape drawing, drawing of maps and machines. In gymnastics he ought to be well acquainted with the different degrees of gymnastic exercises; he ought to have attended to all the varieties of exercises, so that no part of his body is developed on expense of any other, and he ought to be able to swim three quarters of an hour uninterruptedly in still water or with the current, if he is of sound constitution. In singing he ought to

sing correctly and have a fair knowledge of the theory of song, if he has been at all gifted with musical talent. Besides these acquirements he must be possessed of several others more particularly connected with his future occupation.

77

If a scholar is proficient in these branches in a degree enumerated in the preceeding paragraph, and has besides always sustained a good moral character, he shall have a certificate with No. I., or No. I. with distinction.

78

It will be easy to settle, according to the above, the degree of knowledge of which a scholar with fair talents and good application ought to be possessed, if he leaves the college after having gone through the first division of the high-school.

THE END.

## ERRATA.

Page 45; third line in the note, read, Despretz for Derpretz.
" 54; twenty-ninth line, read, divide for deride.
" 55; twenty-ninth line, read, have for has.
" 59; twenty-first line, read, separate for seprate.
" 86; last line of the text, read, † for *.
" 92; second line, read for for from.
" 105; eleventh line, read, this noble for hisnoble.
" " ; twenty-first line, add, of, at the end of the line.
" 113; seventh line, omit, more.
" 121; tenth line, read, sary for sarly.
" 125; twenty-seventh line, read, sink for sinks.
" 130; fifteenth line of the note, read, *orbus* for *orba*.
" 145; third line, read, paragraph for passage.